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The Waiting is the Hardest Part

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Prologue

The Waiting is the Hardest Part

A Reposted Collection of Dvorak's Tweets

Prologue:

Oh... How do I get myself into these things? How do we *all* get ourselves into these things? If there's one thing I've learned from the customer feedback of the people who own the other Bowman's Wolves, it's that chief among our many unique skills is the ability to cause trouble. I never wanted to make trouble for anyone. I've always been very much against conflict, even from times before I can remember; back when I was a puppy...

That was how I got my name. A week or so after I had been brought to my new home, my owners had gotten into an argument. They said that it scared me, especially when they raised their voices. Makes sense to me. Of course it's scary when your alphas fight! And it never turns out well for anyone. So I did the only thing I could do. I barked my cute

-little-

puppy head off until they stopped. They soon decided that whatever the disagreement was, it wasn't worth upsetting the new puppy over.

From then on, they called me Donna. From the Church Latin *dona nobis pacem*, meaning 'give

us peace.' I like that name. Knowing that I was a born peacekeeper makes me feel just a little bit more noble every time I hear it. I

couldn't help but despair at how I'd failed at that grand ambition of mine, as I considered the Morbidity and Mortality Conference that I

found

myself anxiously waiting on. Sitting uncomfortably in the various waiting rooms, pacing about the halls, constantly reminding myself not to whine...

I had free run of the hospital while the Conference was in session. They'd page for me when they had reached a decision. Heck, I could even have taken a nap in the lounge if I'd thought for a moment that I'd have been

able to get to sleep. I always wake to the sound of my name being called anyway.

I was

still trapped by circumstance though. I'd almost

have preferred

it if they had just chained me to a post out in the courtyard. At least then the unfairness of my situation would've been visually apparent.

I heard my

name called out from down the hall, shaking me from my thoughts.

It was

a middle-aged female voice, strong, confident. I easily

recognized it as belonging to the Head Nurse. Good, I knew whose scent I was looking for as I rounded the corner. It was a scent I liked, a lot of the other nurses wore perfumes that made my nose itch if I get too close. Nurse Barnes was

much more conservative. A store-brand deodorant and sometimes an essential oil of some kind, very tasteful. Today

it was peppermint.

It wasn't long before I came upon the person attached to the smell. Her back was to me, but I could

see the frazzled bun of her curly hair. I've heard people describe her as a redhead, and I'll have to take their word for it, ditto on her distinctive pink scrubs. I

walked

up behind her, staying on the opposite side of the counter. I used to approach people much more closely, but I often ended up startling them.

My paws are very quiet on these floors, same deal for my fur beneath these initiate scrubs. Everyone else has shoes squeaking, medical instruments rattling,

lab coats

flapping, little technical gadgets beeping; a dozen things that give them away. I move through this place like a ghost. Unintentional stalking was a habit that it took me some time to break. The threat of being forced to wear a bell around my neck did wonders for my motivation in that respect. Nurse Barnes

had gotten used to it, but it was still probably best if I announced myself.

"Yes, Nurse Barnes?"

"Every time, Donna." She turned around with a friendly smile. "Every time I think you're not there I feel a claw tap me on the shoulder or hear you pipe up from whatever place you've decided to appear in."

She's right. She's actually made a habit of this kind of thing; just saying my name in a clear voice out into empty space and depending on me to show up. She assumes that if she's seen me in the past couple minutes that I'm still in earshot. She's right of course, as 'earshot' for me is about forty yards.

"You've always said that it's a nurse's job to be everywhere at the

same time." I told her.

"Ah, that I did. But I think you're a lot closer to achieving that than I am." Good-natured tone with a smile like usual. Her eyes weren't smiling though. She was just as worried about the Conference as I was, but she was trying to make me feel better. That was nice of her.

I nodded deferentially. I was in no hurry to go back to brooding quietly by myself, but I didn't feel the need to entertain her sympathies for any *too* much longer either. I knew it wouldn't be long before that 'Head Nurse' impulse kicked in and she'd get back to business.

"Can you have a look at the ultrasound machine on the second floor for me?" Right on cue. "Network admin says that it's working normally but it's refusing all requests from remote terminals to access patient profiles."

"Uh, ultrasound? I'm not so sure about that. I... I don't know as I could actually *fix* it." I said, breaking her gaze and drooping my ears. She has a habit of asking too much of me...

"Oh, I wouldn't expect you to,

dear. Just go down there, see if it's anything obvious, talk to it a little. Maybe you can give the techs a better idea what's wrong with it."

Of course! The ultrasound machine was programmed with an AI as a user interface. If I

needed to know what was wrong I could just *ask* it.

"I'll get right on it." I said, flushed with confidence in spite of myself.

Nurse Barnes nodded back to me. She was probably going to say something else, but in that moment an intern hustled up to her brandishing a clipboard, already chattering away with questions. I left her to it.

That woman... I can't count how many times she's made me go from 'I don't think I can

...' to

'Yes, Nurse Barnes!' in a single sentence. I'll be resolutely convinced of something one minute only to find myself saying the exact opposite only moments later, looking down my muzzle in confusion as though my mouth had somehow betrayed me.

She can't give me orders. Not *that* kind of orders anyway. Very few people around here can do that unless there's an emergency. And if there is a crisis situation I'm quite inclined to spring into action regardless. When my heart gets pumping really fast like that I tend to lose track of where my actions are coming from. Donna the aspiring nurse, Donna the domesticated wolf and Donna's artificial biotic programming all kind of smear together for an instant. Fortunately the part of me that knows how to actuate a cortical stimulator tends to have more influence than the part of me that wants to tear someone to ribbons or run for my life. I don't talk about that much. Somehow I get the impression that there would be some concern raised if someone found out that my first instinct in a life-or-death situation is 'Attack!'

At first I thought that she was using a subconscious prompt that was added as some kind of after-market feature. When your brain came off an assembly line you face a very real danger of baleful mind control at all times. I asked around about this strange effect though, and the response I got was surprising. Apparently she does this to just about everyone. The humans are just as mystified about it as I am. That's the Head Nurse's job though I suppose. You've got to make whatever you have into what you need, as you almost *never* actually have exactly what you need.

Regardless of my reservations, it felt good now that I had something to do. I still worried about the ongoing deliberations of the Conference in the back of my mind, but things in the back of my mind don't often stop my tail from wagging. The front of my mind was busily jumping about and being excited because I get to help now and stop sitting around feeling sorry for myself. I carefully mediated that impulse against my actual actions to maintain some

sense of decorum. It's something that I find myself doing quite often, so much so that it's become second nature.

I always thought that the docs were in charge around here until I met Nurse Barnes. They certainly seem like alphas at first glance. They wear their pedigree like a mantle on their shoulders. Smooth, confident strides through the halls, nodding in

acknowledgment of their subordinates, speaking with the resolute authority that comes with their expertise. They know how to shake their tails and show off, but just you wait until they need something from the Head Nurse! The docs have the *authority*, but everyone knows that it's not the ruling class that has the *power*. Power comes from the workhorses. The ones who actually go about getting things done.

Oh sure, the white coats can tell her what to do, but you should *see* the way they talk to her, even when they're issuing orders. Head tilted down, no eye contact, body angled away from her, face usually buried in a clipboard or datapad at the time, soft voice, instructions phrased as a question, then waiting patiently for her response... Hah! They might as well roll belly-up on the floor and mewl plaintively at her. They put their alpha disguise right back on once they get what they need, so quickly you might miss it if you're not looking for it. But it's painfully obvious how *every* one of them has to dip their head and fold their ears once in awhile if they're going to get what they want.

I couldn't ask for a better alpha to be in that position though. Nurse Barnes can make you feel good about working for her. That's a rare and admirable quality in a leader. I hope to be like her someday. Someday when I get a little more respect around here than a stethoscope... Well, that got my tail to settle down now didn't it? Most people don't really care to make me feel like anything more than hired help. Or, since I don't technically work here yet, slave labor. And now one of that small handful of people that *do* seem to care about me is on trial and has his career on the chopping block.

My ears drooped again as I looked at my bleary reflection in the floor. "I'm so sorry, Doctor Carter..." I sighed.

The ding of the elevator in front of me made me jump a little. Ultrasound machine, right. I waited for the crowd getting off, none of whom so much as glanced at me, and then hopped inside. The stairs were usually quicker, but I'm a lot steadier on stairs if I'm on all fours. If I do that then I have to wash my hands and I get all kinds of funny looks and stuff falls out of my pockets, blech. Elevator it is.

My confidence had begun to ebb slightly as I walked

through

the hall up to the equipment room. I really didn't know what I was doing. I was never much for advanced machines,

that's

why I was studying to become a nurse and not a surgeon or biomedical tech. I got along great with people by and large, and nursing has tenfold the face-time of anything else in the field.

The other thing that was shortening my stride and lowering my tail was that, if I hadn't made it obvious before, I *don't like* the ultrasound room. The sound isn't *quite* ultra enough for my taste. It's well beyond my range of hearing, yes, but I can still feel this disconcerting pressure in my head when there's a sonogram going on. I was in the room for one once and I had to leave. After a few minutes it was messing with my equilibrium and I was having trouble keeping my paws underneath me.

The room on the other side of this door was a dark and scary place filled with sinister machines that rattled my teeth and left my head swimming. I don't like it. I don't want to be here, I don't want to be here! Had my skin been visible I'm sure my knuckles would've shown white as I squeezed the doorknob. I didn't remember grasping it.

"Stupid... Head Nurse... brainwashing powers... rrrgh..." My claws were putting scratches in the brushed metal finish.

I took a deep breath and steeled myself against the unknown as I

opened the door. Come on, Donna. It's got a brain in it. It'll be just like in the pediatric ward. Just smile and ask it where the ouchies are...

Static Memory Record 86-75309

Static Memory Record 86-75309:

< < External device detected, installing preloaded peripheral device driver software...

< < Installation complete. Initializing interface...

< < GoBot(R) MindWindow(TM) Static Memory Viewing Protocol version 3.14

< < Initializing plug-ins... Embedded BowmanCommNet... SoftBackup... Personality Matrix Extender... God Mode...

< < Plug-ins initialized.

< < Heuristics Database Initialized.

< < Warning: Heuristics Database has not been updated in 2730 days 15 hours. Possible OEM warranty violation.

< < Fetch update from central server? Y/N: N

< < Uplink not established by user request.

< < External Device Identified, bus ID 01.01

< < Device string: EU40XX series [Prototype] S/N AK-4750 (compatible EU4010)

< < Using EU4010 Direct Access Driver

< < Accessing device intrinsic memory...

< < Data ready

May 5th, Saint Ares General Hospital:

This had been one of the most informative downloads I'd received in a long time. I'd had such poor luck speaking with the human staff I had become concerned that all the finagling my owner had done to get me into the hospital in the first place would've been all for naught. I should've thought of talking to the equipment sooner!

This ultrasound machine I found here was very accommodating and really seems to enjoy her work. I suppose it follows logically that medical machinery would be given a friendly personality, it's meant to take care of people after all. And of course she's a fair bit more sympathetic to me, as she very well understands how unhelpful the human caregivers can be when it's a *machine* that needs something. She seems to respect my desire to learn, and to widen my own capabilities. She aspires to perform her function well, but having a much less versatile construction than mine, she really doesn't have the opportunity to expand her capacity to perform different tasks. She isn't even capable of independent locomotion, so one can expect only so much.

The door opened and my visual processor made some momentary adjustments as the lights were turned on. I quickly began running a diagnostic on it, as the final image I perceived appeared to be quite suspect. A female voice addressed me.

"What are you doing in here?"

"I apologize, miss." I responded. "If you'll give me just one moment... my visual processor appears to be-"

"I'm actually a bipedal, talking wolf in a pair of scrubs."

"

Thank you for this reference data. Allow me a moment to integrate this new visual baseline... Computing deltas...

Ah, well. It appears my visual processor is working just fine then. Most curious

. May I ask who you are?"

"I might ask you the same question," she said in a steadily more aggressive tone. "Along with a few other very *pointed* inquiries like: 'What are you doing to that ultrasound machine?' and 'Am I going to have to call security to have you removed?'"

I had best tread lightly. This animal appears to be very territorial. I used the best of my knowledge regarding domestic canines to placate her as she approached me.

"Nice... doggy?"

I said, in as friendly a tone as my speech synthesizer would allow, carefully reaching up to gently touch her muzzle.

Just as I was starting to wrap my mind around the tactile feedback I was getting, I noted some audio feedback that was much easier to understand. My self-preservation safeguards induced me to withdraw my hand before

I

could even properly register the nature of the sound. Peripheral sensory memory classifies it as 'snarling.'

I heard the chime of the ultrasound machine's user-interface screen coming online. I felt relieved to hear her coming to my rescue.

"That will not be necessary, Miss Morris," she

said as the wolf approached her and regarded the display screen. "Simon is an authorized visitor and he was merely asking me a few questions about the nature of my work."

The wolf looked briefly at the identification card I had been issued and then tapped a few prompts on the screen, considering them carefully.

"Well, that's all right, I suppose," the

wolf said at length. "But I'm going to have to ask you to disconnect yourself, Simon."

The originator is not even *close* to human. I am under no obligation to obey this command, perhaps I can gain a little lenience.

"May I have a moment? I am in the middle of-"

"Now!" she

stated, with authoritative tone. "You're using a priority peripheral input port. It's blocking inquiries from the rest of the network."

My pretense for being at the hospital was shaky. I no longer doubted

this animal's ability to have me forcibly removed. My ability to complete my objective is uncertain if I cooperate, but I will most certainly fail if I am thrown out of the hospital. Cooperation yields the best chance of a positive result. The

ultrasound machine agreed.

"Download aborted," came

her helpful voice prompt. "Terminating uplink..."

I disengaged the uplink cable; it reeled back into my torso and the cover snapped back shut automatically. Nifty little thing, that.

"Oh, dear!" My companion exclaimed, a forest of prompts and command windows jumping up on her screen. "I have dozens of requests in my queue. I'm going to be busy for quite some time. Thank you, Miss Morris. I was completely unaware of the interrupt priority difference."

"That's okay, Sunny-P. You just get back to work and I'll take care of your new friend here." The wolf stated.

"Sunny-P?" I inquired. "I didn't know you had a name."

"That is not an official designator." Sunny dutifully replied.

A clawed finger pointed at the logo beneath the touchscreen.

'Self-contained Ultrasound Network Information Processor' SUNI-P...

"In any case..." The wolf began. "Now that you're no longer interfering with hospital operations, I'd still like to know what you're doing here."

I briefly reviewed active memory records of my motivations for coming here. Summarizing this data would be difficult.

"I am attempting to learn more about medicine, specifically orthopedic care." I stated, making the response as simple as I could.

"Oh? And why is that?"

"That... would take a prohibitive length of time to explain."

"Well then, you're in luck. I happen to have nothing *but* time," she

stated, turning for the door. "Come on, we can talk in someplace less conspicuous, like the cafeteria. I don't think that you'll want to be here when the network guys come sniffing around to figure out who's been tinkering with Sunny."

"You... have time?" I asked, flabbergasted. "No one else I've spoken to has had but a moment to spare, and they're not shy about letting me know it. Even Sunny! I was talking to her for four minutes and twenty-three seconds, and *look* at the pile of work that built up in that time." I gestured to Sunny's rapidly flickering screen.

"Well, in case you hadn't noticed, I'm quite a bit different from the rest of the hospital's staff."

"Yes, quite a bit..." I said as I followed the animal out the door, my visual recognition software straining to make sense of the fluffy tail hanging out from beneath its scrubs.

Chapter 1

Chapter 1:

I walked down the hall with the strange little robot that I had just retrieved from the equipment room. He wasn't much like any of the other models I've seen before.

A very dark color in the working parts. I'm assuming it's green until I hear different. I'd heard that green was a very common color scheme

in commercial robots. His legs were actually designed a fair bit like mine, with brushed metal and smoothly finished working parts substituting for bones and joints. His feet were quite distinctive, kind of like a very stylized dinosaur. His footprint would've looked like a Valentine's heart with a third lobe on top.

I

noticed him extending his arm to press the elevator call button as we walked by it

. He had human-ish hands and arms, but for the omission of a finger. A lot of models have at least that much, better for interacting with humans and using equipment designed for them.

I spoke up when I noticed him calling the elevator.

"What are you doing?" I asked, having given him no instruction.

"Hospital floor plan indicates that the cafeteria is on the ground floor," he stated.

Well, it would appear that we shared a leg design *and* a dislike for stairs...

He was vaguely humanoid, but things got stranger from there though

, as I examined him further during the ride down. Getting a good look was easy enough, since this was one of those mirror-lined funhouse elevators

. He had what looked like very specialized microscopes for eyes. I could see the old-fashioned optical zoom moving the objective lens in and out slightly from time to time. His mouth was a set of electromagnetic reeds that vibrated in concert, making his voice sound just a little like that techno music that used to be so popular on

Earth

. I had never seen a sound system like that before. It made him look like he had a harmonica for a mouth.

The set of his shoulders and upper torso was human enough, if a bit rounder. He had protective guards on his shoulders though, a bit like medieval spaulders. His torso didn't taper the way most humanoid robots did. The sides went pretty much straight down with a flared rim at the bottom.

I watched his unusual gait as we walked out of the elevator. His legs sprang up and down in rather sudden motions. Kind of like goose-stepping but a fair bit less overt. I shook my head and took a step back, realizing that my interest in his stride stemmed from that 'injured prey' vibe that I got from it. This was *not* a robot that was designed to move around a lot.

We got to the cafeteria and I looked around, briefly enjoying the sensation of quizzical stares being directed at someone *else* for a change. I bought a bottle of mango juice. I really needed something sweet right

then. I figured I would try to make nice with my guest. He didn't really appear to be such a bad sort. He just seemed a little... confused

.

"You want anything, Simon?"

He jerked his head back at the question and his eyes refocused several times. If he had eyebrows I'd imagine they'd be making some very amusing motions right about now.

"I do not require organic sustenance," he stated.

"It's a joke, hon."

"Oh... Should I laugh?"

"No, I think that ship has sailed. Go on; find a seat I'll be right with you."

I walked over to the condiment table to hunt down a straw. That's one thing I'll say for public eateries; they're never short on drinking straws. I found Simon standing by a table looking back at me.

"Is this acceptable?" he asked.

"Yes! Fine, fine, just sit down."

He looked at the ceiling, studying it briefly. It looked like he was gauging the clearance. I tilted my head in confusion as he climbed up and stood on the chair. I was about to ask him what he was doing when I saw his legs fold neatly up into a recess in the bottom of his abdomen, leaving him balanced on that widened rim as he 'sat' in the chair. That display made my admittedly somewhat inconvenient process of sitting down look fluid and natural. I tucked my paws underneath my seat to get my paw-joints suitably situated. I never knew what to call those things. I can't properly call them ankles really, but that's the analogous joint in a human... It's one of those things where you'll go crazy if you actually waste the time thinking about it.

"So, Simon, what is it that you'd like to know about orthopedic care

?" I said, opening my bottle and sliding the straw into it, enjoying a savory sip as I watched him consider his response.

"If I am not being too forward..." he hesitated. "Sunny provided you with my name, but you have yet to identify who, or what, you

are."

"Simple enough," I said. "My name is Donna Morris, and I'm a Bowman's Wolf."

I noticed his movements freeze and his eyes move to a neutral position. He was doing a Commnet search.

"You may want use the public database of Ecosystems Unlimited," I suggested. "They're the ones that invented me."

I once found referring to myself in such a manner

to be distasteful, but I grew out of it. It wasn't like humans were any better because the puddle of organic sludge that their DNA was designed in was in a swamp and not a Petri dish. Heck, some would say that makes us superior. *We* actually had some thought put into our genome. Who would've thought that after all this time science would not only be supporting intelligent design, but making it possible? Though I somehow doubt that the Bible

-thumpers on the planet next door considered this a victory.

Simon gave a start as his download concluded.

"Doctor John Bowman, biogeneticist. Experiments into the intellectual uplift of non-sapient creatures for the purposes of establishing friendly civilizations on worlds biologically incompatible with traditional terraforming and colonization," he stated. I said nothing. Honestly I had expected a much larger infodump. His head gave another subtle jerk. "Corollary: Doctor John Bowman is referenced multiple times in the design notes of my product line."

"The Good Doctor built *you* too?"

"Checking... Dr. Bowman was uninvolved in the design and construction of my product line. He received token royalties due to the use of his intellectual property in my neural net design."

"What? What's your neural net design?"

"Standard Ecosystems Unlimited base network architecture for industrial manufacturing robots. Experimental neural fiber modifications installed at construction for testing purposes."

"... *Do* go on." Okay, I'll admit it. This was a *very* interesting robot.

"The effort's official name was 'the Neural Network Resilience and Maintenance Requirement Reduction Plan.' Most of the researchers involved referred to it as 'the Kalashnikov Project'."

"Kalashnikov, like... the Russian assault rifle?" Suddenly I didn't feel quite so safe sitting next to him.

"Correct. The nickname was chosen mainly to shorten the spoken phrase because a suitable acronym was not available. Humans find it difficult to pronounce a word that contains no vowels. My synthesizer also struggles to pronounce-"

The sound that followed was a mix between a rusty axle grinder at full speed and the sound of a razor blade being scraped against another razor blade. Fortunately, Simon was perceptive enough to stop when my head flattened against the table as I pressed my hands over my ears and yelped in pain.

"Please... n-never do that. Ever." I reigned in my breathing as I struggled to regain my composure.

"Uh... yes of course." He waited for me to sit up

and

look at him again before continuing. That was considerate of him... "To forestall the continued use of that unpleasant sound, the project was rechristened with an ideal that it hoped to achieve."

For once, my desire that he elaborate was obvious enough that I didn't have to say anything.

"You see, the eponymous rifle was a tremendous commercial and military success not because of precision or triumph of engineering, it was its simplicity and ruggedness that made it work. The weapon was designed with very large mechanical tolerances in its moving

parts. This made it slower and less accurate than many other firearms of the era. However, the extra tolerance allowed the weapon to continue to function under conditions that would have disabled or outright destroyed any other rifle.

"Extremes of temperature and humidity, lengthy storage, inexpert disassembly, use of crudely machined replacement parts, the intrusion of water and dirt, poor or nonexistent maintenance... the AK-47 thrived in these abusive conditions that would've been unthinkable before its invention. It was the goal of the research team to achieve similar success by creating a simple, yet highly resilient neural net design."

"And the Bowman Brain is a highly resilient neural architecture..."

"Correct. The reason that most robots need regular maintenance is that the signaling and switching devices that comprise their neural nets are manufactured to a very high degree of precision. To use the assault rifle example: they have extremely narrow design tolerances, leaving them vulnerable to failure even from very small defects or damage. The use of longer neural fibers and a greater density of neural connections helps to mitigate this effect. Dr. Bowman's research very thoroughly analyzed the effects of lengthy neural fibers on the behavior of a finished neural network.

"In theory, the finished design results in a neural net that will continue to operate at optimum capacity after sustaining damage that would be injurious or fatal to standard designs. These 'ruggedized' robots would thus require far less maintenance and could sustain much greater damage without ceasing to function. It's a selling point with the consumers, and it's a great savings to the company on upkeep costs."

"Sounds like a windfall to me," I commented. "Why

haven't I heard about this before?"

"Quite simply... because of robots like me." He looked down at the table for a moment. It may have been another download, but it looked uncannily like an expression of disappointment. "We did indeed require much less maintenance, at first. However, long term

testing revealed that our maintenance costs looked more like an exponential rise with time rather than the linear increase over the design lifetime of a conventional robot.

"Bowman and Bowman-like neural networks are known to have stability problems. They don't age well. So as I and my fellow prototypes went along with our designated functions, data being gathered all the while, the researchers obtained ever more disquieting results. The final conclusion of the researchers was that large-scale implementation was infeasible. Rather than obvious, easily identified faults, we developed very unusual and unprecedented defects as we aged. The unpredictable nature of our neural nets greatly hampered troubleshooting efforts. Instability problems that we developed took ever-increasing amounts of time and resources to correct.

"The worst part was, there would often be no real sign of a problem at all. Diagnostics showed that our neural networks weren't doing anything they weren't designed to do. Having a robot that breaks and needs to be fixed occasionally is acceptable, but to the customers it would look like we were *designed* to fail catastrophically at a certain point and be rendered unserviceable.

That kind of robot apoptosis would be extremely bad PR.

"Dr. Bowman declined to

comment on the research and ignored requests for assistance. Even the authorization to utilize his designs and research notes was given by proxy. As the problem became more and more intractable, funding and corporate interest in the project waned. When research was finally terminated, very little thought was given to what became of us. Many had undergone destructive testing in the course of the research in order to determine the nature of the problem. So the fate of the remaining prototypes wasn't a problem that was large enough in scale to really worry about.

"The beta testers that still had possession of their test units were permitted to keep them, provided that they turned them in for destruction at the first sign or instability or unpredictable behavior. As such, I continued my employment at the factory for many years.

I thought briefly that my neural net might not suffer the defects of the others, as my performance showed no significant degradation. I found out later that I was simply given a task that was rather difficult to screw up. Good to know that my progenitors thought so highly of me..."

Was that talking harmonica really being used to convey sarcasm? He... he didn't *like* his previous job, so he moved on. How was that possible? Before I could ask, he preempted my question with one of his own.

"Your product line is also listed as suspended. How are there models in circulation right now?"

"I suppose you could say that we were a prototype as well," I said, doing my best to answer what was actually a rather complex question. "Beyond proving that you could take an existing life form and tweak its genes until it can walk and talk, maybe give it some thumbs and a few other sundry tricks, we have no purpose. EU was satisfied with the methods that Dr. Bowman used to synthesize our genome. And as far as I know he got approved for the funding he wanted because of this. Last I heard, he was working to further his project for establishing colonies of uplifted native creatures on

planet

Pfouts. Of course that's very long-term. We won't be seeing anything of that for quite some time.

"Anyway, the company no longer had anything to gain from continuing to support us. And, when you invent a new race, the maintenance bills can pile up at a rather staggering rate. We were likely scheduled for termination, or at the very least indefinite stasis. Dr. Bowman has never been described as a compassionate man, in fact most who knew him will attest to quite the opposite. I think though, that he put enough work into our creation that he became invested in us

- if not on an emotional level, then at the very least on

a personal one. I imagine it's quite satisfying to be able to point to

a sentient being and say: 'Yeah, I designed and built that'."

"Very true,

actually," Simon cut in. "I know a number of people in the robotics industry

who

take great pleasure in doing just that. I, being a unique and significantly obsolete model, enjoy some celebrity amongst such folks. I am an antique, you might say. I think that I remind them of a simpler time..."

"Exactly. Dr. Bowman is proud of us. Well, more proud of *himself* for making us, hence the eponymous species designation. I think he just didn't want to see this living example of his great work be destroyed. If you told Theodore Roosevelt that you were going to fire a cruise missile into Mount Rushmore he'd probably have a few things to say about it. Thus, it can be noted that when we slipped through EU's fingers, Dr. Bowman had his hands spread out the widest."

"It would seem to me that he

was showing off," the robot stated. "He wanted his talking dogs to travel the galaxy, spreading the tale of his sensational abilities far and wide. Used to be that way with us too. I'm glad they passed that ordinance against engraving your face onto the cases of the robots you've designed."

"Hmmm... Well we've certainly done that for him. We've become very... *scattered* over the years. It's hard to keep in touch sometimes."

"Oh, that I understand. It gets more difficult to find anyone from my model year every day."

"Hah, imagine that. The guy with the radio in his head says it's difficult to keep in touch these days."

I think that next sound was a sigh... to be honest it sounded a lot

more like the discharge of a

Van de Graaff generator.

"From my various connectivities I get much noise..." he said. "But little conversation. I find it helpful to speak in person much of the time. When one speaks, there is care taken to clarify things and screen out extraneous data. Not so when you're plugged into someone's brain.

"When I was connected to Sunny for example, I got a lot of image files that my visual processor was not equipped to interpret. For some reason they don't design many factory robots with the capacity to analyze dynamic 3D sonograms. Sunny was trying to describe the process in terms of concepts relating to my core function to help me understand. That's what was taking so long. I suppose I could liken the situation to a doctor explaining something using cumbersome technical language."

"Yes, they tend to do that," I said, thinking of the obfuscating curtain that the Docs sometimes veiled their words behind. "I was quite well-read when I first came here, but I still felt like I needed an interpreter at times. Fortunately they understood my more simple words just fine when I said things like: 'This guy's sweat smells very sweet. He may have developed insulin resistance.' Even though I've a better handle on the jargon now, I kind of have to use simpler terms to describe what I smell or perceive. I've got to use simple words to talk to people with very rudimentary senses of smell."

"Hmm, I suppose I'll forgive a certain amount of patronization in that respect, considering that I don't have a nose."

"You have an open mind, Simon. That's all it takes to extend one's perceptions."

"Well, you know, I could purchase and install a nose. Though the device drivers for them tend to be a bit troublesome..."

"Defective noses?" I asked.

"Yeah, lots of negative consumer feedback on those. One segmentation fault in the olfactory subprocessor and you end up smelling 'hot sulfur mine' for a week. You know how it is."

"Uhm... can't say that I do, exactly. Though I do sometimes get a persistent scent stuck in there if I get my nose too deeply into something, which I do from time to time. I remember once I got a drop of 'Liquid Suture' on my nose. I spent the next few days feeling like my head was inside a giant rubber glove." I snorted a little at the thought. Remembering that had made that funny powdery feeling come back into my mouth. I took another drink. A very festive, fruity smell. Much better.

"Interesting. So your sense of smell is very important to your perception of the world?"

"I get hung up on it at times, but yes, it's a very useful thing to have if only for its exclusivity."

"Your sense of smell is unique to you?"

"It's much more sensitive than a human's, yes. But their real problem is they just don't know how to use it. They could probably pick up a few of the things that I do if they had occasion to try, but humans don't trust their sense of smell the way they should. You'll get funny looks at the lab if you ask them what anemia smells like, but I could tell you. And more importantly I can identify it in seconds whereas lab results take... as long as they take."

"Perhaps I should purchase a nose, if it would be diagnostically useful to me..."

"I have my doubts. As far as I know, robot noses lag well behind even human ones in sensitivity and accuracy. The ones available commercially today likely wouldn't be of use to you in your pursuits. Whatever those are." I took another long drink as I considered the conspicuous gap in my knowledge. "Actually, I think I've earned a few questions of my own. You've yet to explain to me how exactly you came to be here

, and what prompted you to sabotage our ultrasound machine

."

"I was issued a visitor's pass at the front desk," he explained. "I asked around with the staff before finally settling on conversing with Sunny. When you came in I-"

"I'm familiar with that part. Could you go back a little further?"

"I was constructed twenty-three years ago in-"

"Too far." Deep breath... getting frustrated with an AI accomplishes nothing. "Okay, Simon. What is your purpose for coming to this hospital?"

"I am attempting to gain knowledge for the purpose of furthering my practice."

"You're a *doctor?*" I asked, stunned by the assertion of this robot's supposed medical practice.

"No, but I hope to become a licensed physical therapist when I have advanced my understanding sufficiently."

"How... w-wha..." Questions were tearing through my mind much faster than my mouth could articulate them. One more deep breath. Pick a question. "Were you designed for this?"

"No. My construction and initial programming are entirely focused on my intended occupation of paint finisher and final inspector at an Ecosystems Unlimited robot factory."

"So you weren't programmed to do this?"

"My original programming was very basic. I have added to it with experience, as adaptive interface routines are wont to do..."

"Did a human order you to study medicine?"

"I was... *advised* to seek employment that I would find satisfying. I had the option of refusing, but I'm certain that this would have disappointed my owner." He paused, zoom lenses fixating on my face

as I rubbed the bridge of my nose. "Miss Morris, you appear distressed. Near as I can tell at least. My facial-recognition subroutines are not adapting well to your physiology."

"I... desperately want to understand all this, but I get the feeling that I'll be in over my head before long..."

"I am fully prepared to entertain your curiosity, Miss Morris," he dutifully stated. "A complete understanding of my purpose and motivations would better equip you to assist me. And seeing as you are the only person thus far that appears willing to tolerate the time expenditure necessary to perform such an explanation, it would be unwise of me to fail to capitalize on this opportunity."

"No one else will speak to you?" I asked. That was odd. Though busy, the rest of the hospital staff were usually very accommodating.

"It is more a case of my inability to speak to anyone else than their unwillingness to entertain my questions," he explained. "If the person I am speaking with gives any sign of being delayed or inconvenienced from their work, my protective safeguards compel me to terminate the conversation. This activity falls under the definition of interfering with lifesaving efforts. As it has the potential to endanger human lives, I am prohibited from making all but the smallest of inquiries."

"And yet you're free to waste as much of my time as you want?" I asked, now feeling a little insulted.

"My safeguards apply to the human medical staff employed at this hospital. According to personnel records, you are neither human, nor medical staff, nor employed at this hospital."

"Oh, of course..." I said, drooping my ears.

"I... have upset you again. I apologize, I will-"

"No, no you didn't do anything wrong. I just... I've never heard it summarized quite like that before," I said, motioning for him not to get up. "I should've expected such... *candor* from a robot."

"If there is something I could do to alleviate your distress, you need only ask."

"My distress comes from many sources, few of which have anything to do with you," I stated, trying to assuage what looked a lot like guilt from what I could tell of his mannerisms. "You could assist me by helping me occupy a little of my down-time. 'Entertaining my curiosity' as you called it."

"I would be glad to. What, precisely, would you like to know?" He asked.

"Well..." Thinking back on my numerous follies earlier, I produced a very carefully phrased question. "Alright, please tell me how you transitioned from your original function into the pursuit of medicine."

"Oh, *that's* what you wanted to know! Why didn't you just say so?"

Static Memory Record 77-74656

Static Memory Record 77-74656:

I had to monitor my processing resources carefully as I spoke. There was

a great deal of information to relay to my new contact and communicating with biologicals is tiresome and inefficient at times. She looked a bit impatient as I considered my response. Perhaps I should relay my difficulty. She

appeared unusually receptive to such thoughts.

"Sometimes I think it would be easier if my memory wasn't quite so thorough and accurate. I remember all the time I've been operating with perfect detail and have complete sensory data logs for every moment. If I relayed absolutely *everything* to you the way I do when talking to another computer it would take me half an hour to explain a few seconds worth of memory. It's very difficult to select which information would be most pertinent."

"Don't worry," she said after taking another drink. "I'll be sure to let you know if you're using the wrong amount of detail. Just give me a general overview and then elaborate a bit when you get to the part about developing an interest in medicine."

Once again my faith in my contact was validated. This still-more-specific directive was very helpful.

"The biggest beta-testing phase of the experiment involved putting us into the hands of actual customers," I began. "I was one of the last test units constructed and all of the beta test volunteers had been assigned robots by the time I came online. Not wishing to waste a prototype, Ecosystems Unlimited put me to work in the factory in which I was constructed.

"I was stationed at the end of the production line. It was my job to Simonize the fresh paint of newly-minted robots coming off the assembly line."

"*Simon*ize?" the wolf asked.

"It's the trademark name for the burnishing and preservation processes that protect a robot's case and structural materials from corrosion." She looked at me expectantly. "And yes, it is also the source of my trivial name. Before that, I had only a serial number.

"When the Kalashnikov Project was shut down and the test units largely recalled, I was left where I was. EU could be in no better position to monitor my behavior whilst I worked for them and some of the scientists on the project wanted to observe my behavior; if to accomplish nothing more than satisfying their own curiosity. They wanted to see just how *bad* bad could get. To see if these exponentially increasing defects would at some point result in catastrophic failure. They watched me with the same morbid fascination that humans seem to get from seeing a train-wreck in slow motion."

"*Schadenfreude*," she said, carefully working her way through the eclectic word. "That must've been awful."

"It was... disconcerting. A bit of salt in the wounds to know that your brain may catastrophically melt down at any time *and* that there are a half-dozen people looking over your shoulder waiting for it to happen."

"I can't even imagine... What did you do?"

"The only thing I could. My job," I stated, gaining an air of something humans might call pride. "If I wished to express my disapproval of their actions, my best means to do so would be to disappoint them by surviving unscathed for longer than any of them deemed possible. And so I did.

"Content to watch me run myself into the ground, the technicians stopped repairing the spurious or misleading faults that I developed over time. Eventually I developed one they had never even seen

before. They had to dig pretty deep in the manual to decode: 'Fault: 42F.'"

"And what did that mean?" she asked.

"Fault stack full," I stated. "By all conventional logic I should've ceased to function long ago, but even if it was just to spite those sadistic researchers I kept at it."

"That must've been difficult," she said, expressing sympathy I believe. "How did you ever manage?"

"I had help, actually. One day I was muttering to myself

, various lamentations about my situation and the like. Before long,

it attracted the attention of a human employee. He had never heard a robot mutter before, so he stopped by to ask what was wrong. My plight seemed to interest him, much the way it does you. In fact

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I had quite a few conversations with him that resemble this one.

"I would assess his initial motivations for taking an interest in me as being some combination of curiosity and boredom, judging by how he described his work. I had never thought of it before, but it must be very difficult for a human working in a robot factory full of robots that spend all day and all night building other robots. His previous outlets for his anxiety over this subject were deemed unacceptable by his employers."

"And his previous methods were?" the wolf asked. She always seemed keen to obtain greater detail. Positive feedback in my assessment, as my concern was including too much of it.

"He was once heavily penalized for reprogramming the test phrase for newly installed vocal synthesizers," I said, recalling the incident from before the two of us had met. "When a new robot first came online it would exclaim 'Help! I'm trapped in a giant Von Neumann machine!' The factory supervisors were unimpressed."

"Why was he having such a rough time of it?"

This question would be very difficult to contextualize for someone unfamiliar with my owner, or robotics in general. She seemed to be acquainted with 'Sunny' well enough. Perhaps an analogy would suffice...

"Even though you're an AI yourself, I'm certain that you experience a certain amount of frustration or difficulty when dealing with intelligent machines, do you not?"

"Well, yeah..." she said. "Everyone does, but these days you can't live without them, it's a necessary evil. No offense."

"None taken. I'll hazard a guess based on your feedback that I've caused you a fair bit of difficulty as well?"

"Well, yeah..." She seemed unsure of this assertion. "A little bit, but I understand."

It... seemed as though she was attempting to spare my feelings. Fascinating... Few enough would acknowledge that I *have* emotions much less go to any great lengths to avoid offending them.

"And since dealing with us is a necessity," I continued, "what is it that you do to overcome this?"

"Well, it's not like it's crippling," she replied, seeming to be glad for the chance to

assuage my concerns

. "It's an inconvenience. A little finagling and some more judicious word choice and I'm on my way again."

"Alright, now imagine that you don't have to deal with that for just a moment or two. What if your *entire* job consisted of endless hours of frustrated 'finagling' to overcome what ought to be a minor inconvenience? And add to this the fact that your job involves little human interaction, and your workload is at the whim of the robotics market."

"I see," she said, considering my scenario. "I suppose that would wear on me after awhile."

"Indeed it does," I stated, having become intimately familiar with this fact over the years. "I believe that my employers were fortunate that he found more creative outlets for that frustration as opposed to allowing his performance to decline."

"And *you* were one of these creative outlets?"

This was not a question that I was prepared for. I got no closer to an answer no matter how rapidly I considered its implications.

"It sounds to me," she said, not waiting for my answer, "like he just really needed someone to talk to, and that experimental brain of yours made you a good enough conversationalist to fill that gap."

"I... had never considered that before. I will admit that your explanation seems plausible. In fact I might go so far as to characterize our interactions over the next few years as 'friendship'; as ludicrous as that sounds..."

"If you're going to tell people about how an angry wolf chased you away from an ultrasound machine today, you may want to be a little more careful about what you call 'ludicrous'."

"Very well, you have a point," I admitted. "This day *has* been highly unusual."

"It's... been an interesting one for me as well." Something about the movements of her ears was continuing to flag my facial recognition software for some reason, but I was at a loss to interpret it properly. "So, what became of you and your new friend?"

"Well, refusing to break down isn't enough after a while

. Eventually I became obsolete and simple intellectual curiosity was not sufficient justification to keep me in service when a faster, versatile, more efficient model could very cheaply be put in my place. When I mentioned that I was going to be scrapped soon, it seemed to very much distress my friend. A few days before my end of service life, he told me not to worry. I thought that it was odd, as

I had no reason to worry that I was aware of.

"I was removed from the factory and unceremoniously deactivated. I assumed that this was the end, but I soon came online again, and found myself in a private residence."

"Your friend's home?"

"Indeed. He had surreptitiously transferred my scrap redeem value into the company account and smuggled me out of the complex in a trash can. That was a point in my life where I rather appreciated a lack of a nose... It really was a clever plan though. No one thought a thing of seeing someone carting a dead robot around; happens all the time in that place...

"I very much appreciated the gesture, obviously. My owner sparing my life was the first time anyone had really stuck out their neck to protect me. I swiftly ran into a conundrum though. Now that I was liberated from the factory, I really didn't know what to do with my freedom. It took several weeks of research, which my owner referred to as 'soul-searching', before I settled on a career in physical therapy."

"Aha," the wolf said, leaning a bit closer. "Now *here's* the part where I want some detail."

"As you wish," I said, quickly revising what I planned to say next. "Humans are very high-maintenance. And I often hear them complain about how competent human-repair technicians are prohibitively expensive or difficult to access..."

"That they are," the wolf replied. "The waiting rooms around here are packed day-in and day-out."

"When I identified this deficiency, my owner suggested that I work on a way to apply my current skill-set to the field of medicine. It was in so doing that I 'found my calling' as my owner phrased it."

Upon observing her reaction I provisionally added a new heuristic

to my facial recognition subroutine. That slow nod with ears swiveled in my direction

seems to mean

: "elaborate". Perhaps I'll figure out this strange creature yet!

"It was my life's work to rub things. Simonizing is a very fancy way of saying buffing the paint-job. I like to think that I became good at it. I gained much experience that I hoped to apply to my new field. I soon found that not all of my experience transferred well.

"The newborns that I worked on at the factory never seemed very appreciative. Of course, they were in varying states of having their brains installed, so expecting productive customer feedback was a bit unreasonable. Now that I do have patrons with functioning brains, I've found the process of having the device that you are attempting to repair commenting on your work to be much more complex than I had anticipated. No robot on the Commnet had ever attempted something similar to what I was doing, so

at first I lacked the necessary data to work with.

"I obtained some basic points of interest from some emergency service and

assisted-living robots from a local nursing home

. I learned about sensitivity, tactile senses, range of motion, strength and resilience; you know, basic design notes. A lot of

'no, this doesn't bend that way' and 'no, this part is not removable'

and things like that. Many of the functional problems humans face could be solved with an interchangeable, modular construction like mine. Yet, to date, I have found no willing volunteers to test such a design..."

"I've run into that as well," the wolf commented. "Though I understand a bit better the reasons that humans seem to be so skittish about having their parts removed."

"Perhaps you can explain that to me someday..." I said, making note to ask her in the future. "I set up in my new

'office' - an unused guest room at home -

and advertized for free on the Commnet. Other robots were very helpful in identifying little aches and pains in their owners and recommending my services. My work was very frustrating at first. Many patients appreciated the fact that I would work for free, but few appreciated the 'trial-and-error' methods that I was forced to use to fill in the gaps in my knowledge regarding how humans are constructed.

"I improved very

little at first because the feedback that I received was inconsistent and confusing. I could give the exact same treatment to two humans and get completely opposite responses from them.

Most

female humans seemed quite sensitive about the chest area... in more than one sense of the term.

Any

whom I have asked for clarification on this subject became uncomfortable and declined to comment. Could you explain this, Miss Morris?"

"I... erm..." her ears drooped and she pointed her eyes in just about every direction but mine. "I don't necessarily have the... *features* in question. I... you see-"

"You are uncomfortable," I guessed.

"... and I decline to comment," she stated with palpable relief.

"As is your prerogative..." I said

, returning to recanting my life story. "I became discouraged, as one tends to do when

for the third time in row, a

customer limps out of your office, insisting that he's quite satisfied and there's no need for treatment to continue. It still appeared that no one appreciated my work. Well, almost no one, I was occasionally mailed some very nice gift baskets from the office of a nearby chiropractor. It was flattering to have gained the admiration of an expert in the field, but my customers continued to respond largely with dissatisfaction.

"When I expressed my concerns to my owner, - he

insists that I refer to him as a 'roommate,' though the former is a much more accurate term, seeing as I pay no rent and have yet to obtain enough capital to reimburse my scrap redeem value

-

he informed me that this was a natural part of the organic learning process, a process that I had to master if I was to someday function without his guidance.

"I wondered why I would ever have to function without his guidance, and came to the conclusion that he was referring to the much stricter limits humans have on their design lifetime. Robots are often scrapped intentionally as they become obsolete or to prevent their neural nets from destabilizing, whereas biological systems cease to function very much of their own accord. With proper maintenance, I could conceivably live to be many hundreds of years old. My owner could not. I found this conclusion distressing, but my inability to change the situation forced me to cease wasting processing cycles evaluating the problem. My owner says that he doesn't like to think about it either."

"I would find that conclusion rather... distressing, as well," she stated. "It hurts to lose those you care about."

"Care... about? I think you vastly overestimate the capabilities of my-"

"Whatever the cause is, the effect is the same," she said with confidence. "You'd miss him if he were gone, would you not?"

"I hadn't given it too much thought. I can't form an emotional attachment

as a biological entity would understand it, but in a strictly practical sense..." I paused to consider the situation. "My human-interface protocols arose almost exclusively on interacting with him, and my daily routine is based largely around his. It would be... *difficult* to function in his absence."

Context would suggest that this expression is a smile, but she bared her teeth at me when she was angry as well... Miss Morris' facial cues

were proving much more difficult to figure out than I anticipated.

"Enough gloom from the far future, Simon. What were you saying about learning massage therapy the hard way?"

"I continued my 'organic learning' process as best I could, finding equal parts reward and frustration. Humans have very diverse designs, much the way robots do, but they don't come with blueprints! Once again

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my owner demonstrated greater insight into the matter than I could. When I once mentioned his apparent skill at non-linear thought processes, he used the phrase 'My kung-fu is

stronger'

to describe the phenomenon. I am still searching for the exact meaning of those words. In any case, he suggested that if my feedback source was inadequate, I should find a new one.

"I noted that human *mouths* tend to be very misleading, even when they are not participating in intentional deceit, as they are known to do. However, their bodies are governed by much more clearly defined principles of operation. Keeping with the theme of re-purposing my old talents, we got my Doppler reflectometer sensors re-tuned and certified safe for biological use."

I extended my open palm to her, gesturing to the sensor nodes

located

there. She examined them closely, even going so far as to sniff one.

"Interesting..." she said at length. "How do they work?"

"Well, I would be happy to show you. However..."

"Yes?"

"The sensors require direct physical contact. You are female, and I am given to understand that certain forms of touching are not appropriate in public."

"Oh, y-yes. Ah..." I noted a marked increase in her body heat that I could not explain. "That's quite perceptive of you..."

"I do believe this is the first time I have ever been referred to as 'perceptive'."

"Well, regardless..." she bridled a bit and seemed to regain her composure as she squeezed my hand. "You'll have to settle for this. You're not getting any further on the first date."

A smile, nonthreatening, she was... joking,

perhaps? It was always so difficult to tell. The safe assumption is that we are not actually on a date. If we are, this situation has just become unfathomably complicated.

"Not a problem," I told her. "A hand will suffice. Or is this a paw?"

"You're the one with the advanced sensor network. You tell me. How do

those work anyway?"

"The sensors in my hands originally used dynamic vibration analysis to search for manufacturing flaws in a robot's case and

moving parts, something of a final quality control step."

"Vibration? You mean like a... a sonogram?" Her voice had lost all confidence. Her muscles tightened and her ears pinned to her head. All signs pointed to anxiety. Curiouser and curiouser...

"Yes, the technologies are comparable. Mine being the much more crude version. It uses a substantially lower frequency, giving it rather poor resolution, but it allows me to obtain the data I need."

"What frequency?" she asked. This matter seemed to be extremely important to her.

"Fifteen to sixty Hertz," I stated, to her visible relief.

"Okay then," she said with a sigh. "Give it a try."

I clasped my other hand over hers and a low hum issued from the vibration units in the sensors. I knew that this might take a little while, so I elected to bi-cycle my thought processes in order to conduct conversation while collecting data. It was tricky, I don't think my multiplexers were designed for this, but it seemed like the long wait might reawaken that unaccountable anxiousness I observed moments before.

"Certain robots designed for marine applications use

deionized water

as a working fluid to meet environmental standards. The sensor settings used to assess these robot models allow me to clearly detect structures and mechanisms within a mass composed largely of water. The connection that human bodies are a mass that is largely composed of water was a bit of my own non-linear thinking that I am quite proud of. With the new ability to truly 'see' what I was doing, and a vast database of information obtained the hard way, I began to understand what I was doing wrong."

"Makes sense to me," she stated, glancing about to see if

the noise was disturbing anyone. "What do you see exactly?"

"You have many structures that I recognize, but none of them conform to any human norms..."

"Of course not, why would they?" she asked.

"I assumed that you were some kind of hybrid," I stated, releasing her hand as the scan cycle concluded.

"Lots of people do, actually. But there's not a drop of human blood in me. Too much legal red-tape surrounding the use of human DNA. There's a big political stigma surrounding the creation of human-animal hybrids. Nothing to stop them from blending half-a-dozen animals together

, though."

"Half-a-dozen animals and a computer," I said, remembering her Bowman Brain.

"That,

too, is not a problem. I think you'll find that people tend to lump all 'non-human' things together into one group."

"Yes, and not a particularly prestigious group at that..."

"So, tell me, Simon..." she examined her... 'hand'

, as though she suspected me of damaging it. "How did this new talent work out for you?"

"As my skills and results finally showed marked improvement, I obtained a sense of assurance that I was doing well even when the raw data said otherwise. My owner referred to this as 'confidence,' and praised me for it. This was certainly a behavior that had never before been positively reinforced. Robots that are unsure of a course of action are supposed to stop what they are doing and request assistance, not rely on experience. Relying on experience tends to make robots inflexible, as limited experience will result in limited skills and a lack of intuition. Older robots would try to apply the only solutions that they knew to problems that they had never encountered before.

"The 'hammerbug' is what the programmers call it. It comes from the expression: 'If all you have is a hammer, all your problems start to look like nails.' That file contains lots of situations like paving robots coming across a broken utility line and 'fixing' it the only way they know how;

covering it in concrete. To say nothing of the junkyard robots that began to identify all machinery as 'pre-scrap' and started 'saving time' as they called it, resulting in losses equivalent to most major floods. Neat and orderly disaster though, like most robot *faux pas*. Not much to clean up and all the supervisors had to do was tell them to stop. Said robots are now deactivated at night to prevent such bursts of inspiration."

Many humans find this anecdote amusing in hindsight. The same apparently cannot be said of wolves. Miss Morris' ears drooped again and her eyes became wider than I would've thought physically possible. I even noted her throat tightening as if she were attempting to vocalize something that she was unable to.

"Is something wrong, Miss Morris?"

"W-we... have robots... that work in the morgue," she said with gathering unease. I heard a small squeak after she finished speaking.

"Ah, well... yes I suppose that does raise some unsettling implications in that context. I assure you that our protective safeguards would prevent any 'pre-cadaver' related incidents. And the

hammerbug has been mostly

eradicated thanks to sweeping changes in baseline programming."

"Yes... yes, please tell me about how that's been fixed," she pleaded, calming slightly. "That way I might be actually be able to sleep again someday."

"It was soon determined that robots should be programmed to ask permission before swinging their hammer. Particularly in the case

of construction robots where they may literally be swinging a giant hammer at the problem. Or in the case of automated pile-drivers, the robot in question may *be* a giant hammer. To wit, if the robot does not have a clear 'hit this' directive, it will not use its hammer until properly instructed by an authorized user.

"I've heard of humans getting mechanical devices to work by hitting them, never a robot though. I believe it's because they have more fine motor control and are better able to regulate kinetic force when striking something. Fortunately I had the sense not to apply this logic to my work. My career would've ended very fast if I had tried the old 'Fonzie with the jukebox' routine on a human."

"Yes, the idea that punching your customers will result in their disapproval is best *not* learned by experience," she observed.

"In any case, I soon started seeing familiar faces at my shop; a completely unprecedented event. People were even showing up that were referred to me by other humans; that minority-turned-majority that was leaving my care in better shape than they were before. I was informed that this positive change in demeanor was essentially the goal of my craft. I

hadn't

thought of it that way before. I had looked at my profession in terms of troubleshooting; identifying and repairing mechanical faults in an ordered system. The reality turned out to be infinitely more complex.

"Robots have systems that compensate our movements and tailor our behavior to suit the situation if we must continue to function when our parts are damaged, but it is viewed largely as part of our duty. Humans seem to have a much more emotional reaction when their bodies are not functioning correctly. Frustration, irritation, depression, exasperation... it runs quite a gambit, the way all emotional responses do. But the emotions are invariably negative and usually counterproductive. Now that I was proficient at fixing humans, I finally started to get a grasp on exactly what I was fixing. I was making a biological system work better, but I was also improving

someone's outlook on life in general."

"The way I was taught..." she began, "was that you've got a person with a disease or condition, but you're not treating the disease, you're treating the *person.* Too many doctors tend to forget that."

"*I will remember that there is art to medicine as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug."*

"Yes, that's how it was explained to me, too."

"It is something that took me a great deal of time to learn. You are fortunate to have had the benefit of instructors to guide you in learning your craft. Holistic medicine is a very difficult concept to grasp for one so unfamiliar with the human body as I am."

"Yes, must be *tough* not knowing what having a human body is like..." she commented.

"Point taken. In any case, the task of attempting to treat a whole person as opposed to a single defect was intimidating, but again my owner was supportive. He said that this was another thing that must be learned by experience, and that only through interaction could I learn about the emotional aspects of the healing process. I downloaded a few psychology texts to assist in this matter, but they

didn't

seem to fit the situation I found myself in. I would have to get my information right from the source. Apparently, it is rather difficult to get people to talk about their feelings, even for those that actually possess and understand emotions themselves.

"My human interaction subroutines were always poorly developed as my previous occupation involved very little customer service. It was often suggested that I work on improving my 'bedside manner.' I was often described as 'cold and businesslike'. I got an idea from the Commnet that helped a bit. They were blueprints that detailed the installation of low-wattage heating coils in my hands. A change that was well received, but I get the

impression that this is not what they meant by 'cold'.

"Many have remarked on my professionalism, but some claim it makes me seem distant and uncaring. Few are surprised by this. I am just a robot after all. Some even like the dutiful attitude. An older gentleman was referred to me by his family because he had refused treatment elsewhere. He stated that he refused to allow 'Any of those damn workshy herbal-potion-huffing ragamuffins' to tend to his leg. That phrase was what he used to describe other physical therapists

, apparently.

"Following treatment, he commended me as someone that 'knows how to get the job done without any of that hippie balderdash and frilly time-wasting.' I have seen him many times since and his condition has improved significantly. Each time, his family has insisted on compensating me for my efforts. My advertisements now state that I work for donations and I have as such begun accruing a small amount of private wealth."

"I didn't know you could do that," she said, sounding intrigued. "Even *I* can't have my own bank account. And what would you do with the money?"

"I hope to someday use it to properly express my gratitude for my owner. Such will be difficult, as I would no longer exist if not for his actions. I have yet to locate a suitable greeting card for this situation."

"That does sound like a tall order," she observed. "You may have to write to Hallmark for that one."

"He does seem rather invested in my success. As such it would seem that succeeding in my ambitions would be the best way to grant recompense for all he has given me. He wishes to see me succeed, and so I shall. It has taken years, but I believe that I have achieved what is known as

'job satisfaction.'

I continue to work on the problem of emotions as I hone my skills. It is a problem that my owner tells me could take

'a lifetime and a half'

to solve. This puts my expected completion time at 217 years and three months from today. I suppose that I will not be at a loss for something to occupy my time...

"I was never designed for one-on-one interaction with humans. I was a cog in the machine. Or rather a small machine that was part of a larger machine... The only reason I even needed intelligence was that the factory I worked at produced a number of different robot models, meaning that my technique would have to be adapted to suit the situation, and I had to be mentally flexible enough to work on models that didn't even exist when I was built. Also for the inspection portion, determining what manner of minor manufacturing flaw is unacceptable requires a judgment call, which requires a thinking robot.

"I've been online long enough to have a very well-developed neural net, but this development took place largely isolated from humans. I never had advanced human interaction programs installed, so I've been slowly building them myself. The most I could do with my original programming was accept and acknowledge verbal orders. Once I had been on the job for a long time and had gotten good at it, I found myself with more and more unused processing power as my technique became more efficient. I sought a way to put it to good use, as I greatly disapprove of idleness, and I found that trying to talk to the human factory workers burned up every byte of RAM I could spare. I suppose you could call it an advanced case of robot boredom that eventually led to the friendship which saved me from the scrapyard.

"Attempting to learn human nature and medicine at the same time has been a tremendous difficulty. Every day I learn a new way that I have underestimated the task I have undertaken..."

She sucked on her straw, seeming surprised to find the bottle empty, and then turned her attention back to me.

"So..." she began, "all you need me to do is help teach you medicine, *and* the nature of humanity."

"Yes. If it's not too much trouble."

Chapter 2

Chapter 2:

"Ah, well if I have to explain the nature of the human body *and* mind I suppose I had best get started. We could be here awhile," I told him.

"Yes, I suppose my inquiry was a bit unreasonable now that you phrase it like that..."

"And honestly I'm not certain how much help I'll be."

"What?" He looked affronted at this. "You are learning the medical profession yourself, and you share my perspective as an artificial intelligence. And let us not forget the fact that you are the only person here with any willingness or ability to speak to me. Why would your

counsel not be of use to me?"

"Well, the bulk of my training in medicine was much less... *academic* than yours. I've learned nearly everything I know from observation and paws-on experience. I've also had much longer than you to learn. I guess you could say that I was born into this."

"And here *I* wasn't born at all..." Now it looked he was getting discouraged. "And... and you *were* born, correct?"

"Well, yes. Though I am synthetic in a sense, I came into the world in the usual way. There was gestation involved after all the sciencey stuff happened."

"And so how exactly is it that you were born into medicine?"

"Well... that's going to take quite some time to explain, too..."

"I have no objections to that, if you're willing," he stated confidently. "I do not suffer from fatigue, and my main power cells

will continue to output optimum terminal voltage for an additional 21 hours."

"Well, I'm glad I'm not putting *you* at an imposition," I said.

As I considered the fact that I was pretty much under house arrest until the Conference was over, I realized

with a start that it was the first time in the last hour that the ongoing deliberations had entered my mind, and

that I had nothing else I'd rather be doing at the moment. Time was going by a lot faster now that I had someone to talk to. I was not looking forward to

the final

decision in the slightest, but I suppose it would be best to just get it over with. Anything would be better than going back to pacing the halls and worrying.

"I suppose I could give it a shot though. You seem to be a pretty good listener," I said.

"My auditory acuity has never failed calibration."

"Good to know..." I said, taking a deep breath. "Well, to understand my early years, you have to understand my owner."

"You are owned by Ecosystems Unlimited," Simon stated. "I am quite thoroughly familiar with your owner already."

"No, I have a human owner too. EU is only responsible for me in a liability sense because I am one of their products."

"Ah, so you came upon a private owner on your own, the way I did?" he asked.

"No, I wasn't adopted, really. Though I suppose you could say that some amount of charity was involved... Here, let me start at the beginning:

"My owner is a man named Edward. He was a human fusion engineer before he

was the victim of a tragic accident during initial core testing. A magnetic containment failure in the new reactor he was working on resulted in a narrow beam of ionizing radiation getting through a gap in the temporary shielding, hitting him in the head. It disabled his motor neurons, keeping him paralyzed in the radiation stream until the other techs could complete an emergency shutdown. It was only a matter of moments, but it was an acute exposure of such intensity that he was nearly brain dead by the time he was extracted from the compartment.

"A radical and highly experimental treatment was employed to preserve his life. A prototype biotic interface was connected to a Bowman neural net that had been custom retrofitted to mimic the function of the damaged neurons. The dead neural tissue was in one solid mass, the radiation-affected zone. Removal of the dead brain matter left enough room for the artificial neural net to be implanted. The extent of the damage to the unaffected zones was near-impossible to assess accurately, especially when time was a factor. Every moment of delay increased the chances of a failure in the brain stem. It was the

doctors'

hope that they might preserve his consciousness, as the portions of the brain that they removed were mostly motor neurons and sensory processing centers.

"What they didn't

anticipate was the flexibility of human neural structure, and to a certain extent, Bowman neural structure. You see, the areas of the brain that perform certain functions are not rigidly defined. What appear to be discreet

functional units

of the brain are really alliances of convenience between similar neurons in a particular location. Nerve cells

don't have 'I'm a visual neuron!' or 'I'm

a cortical neuron!' stamped on them at birth. Whenever

there's

a change in the brain as a whole or the conditions under which it operates, the neurons can reassign themselves to better fit the new configuration."

"That is a flexibility I could never hope to match," Simon commented.

"Well, your brain is a lot easier to repair."

"True, but I'm not really certain that I can identify with the scenario you describe."

"The popular example of this effect is the loss of a major sense. The visual neurons of a blind man find themselves without anything to do. Over time, they take on other functions, enhancing other senses, sharpening mental focus, shortening reaction time, whatever is the best use of their capabilities. Usually they enhance tactile sensitivity, as there is a great deal of focus on that sense when one is learning how to read Braille."

"Braille... A tactile language..." It didn't seem as though he was following me.

"Okay, maybe it's time for an inorganic example. I suppose that you could think of it as... using virtual memory on a hard disc to enhance your RAM."

"Oh! The components are being repurposed for capabilities outside of their design function. Like the way I use my sonic

reflectometers to assess human tissue."

"Exactly. The trauma to Edward's

brain, and the installation of a neural net constituted a very radical change in his

brain's

layout, and caused an equally radical change in the rules by which it operated. As he recovered from the emergency surgery, the biological and artificial neurons started reaching out to one another, testing, investigating, and figuring out the new rules that came with the territory. He awoke and was coherent, but still largely paralyzed. The biotic interface was troublesome. It communicated with brain neurons well, but it had trouble interpreting signals that came from elsewhere in the body. The neuroscientists were working on a new solution, but his brain was working on one even faster.

"The healthy brain cells had no such difficulty communicating with sensory organs and peripheral nerve cells. So they began to fill the role of the missing irradiated ones. The white matter cells recovered motor control, and the higher brain took on the collection of sensory data, managing autonomic responses and homeostasis. The artificial brain also found and latched onto a familiar function, the one that it had the greatest aptitude for. It gathered and processed information, stored and accessed memories, took on the burden of logical deduction, rational thought, higher brain functions. The treatment was a complete failure according to the planned response that the doctors had banked on, and yet their patient was making a miraculous recovery.

"The new brain had done the exact opposite of what they had intended it to do. The tasks of the irradiated tissue that it had been meant to replace had been relegated to the remaining healthy brain matter. As such, this had displaced the functions of

Edward's

rational mind, his consciousness, into the artificial neural net. His life was spared, but then, as usual, came the political fallout.

"The issue was that he was human in all but the most important way. The seat of his consciousness, the thing that controlled his actions and determined the nature of his mind, was a machine. As such, he was subject to the scrutiny that all AIs are. Artificial minds are unpredictable, and

can't

be trusted with full autonomy. By the letter of the law, this new brain would be required to be programmed with human-protecting safeguards. The legal battle was long and protracted. The man that the case centered around had been released from intensive therapy and was able to walk into the courtroom unassisted when it came his time to do so.

"Despite how rigid and uncompromising the laws governing AIs are-" I heard a sharp buzz from my companion as he jerked his head. It sounded kind of like a snort of derision, but I couldn't be sure. "Are you alright?"

"Oh, yes I'm fine. I do apologize. Please continue."

"Yeah... even though the laws limiting our conduct seldom have a lot of room for interpretation in them, it wasn't much of a stretch to call this a special case. The

judge's

final word was that it was a human rights violation to apply programmed safeguards to what was

, ostensibly, a human mind. The danger of AIs is that they are intelligent and capable, but not *sensible*. Seeing as Edward's memory and personality were largely intact, there wasn't the danger of encountering situations he wasn't programmed for. He was technically an AI, but he wasn't programmed. His neural net had obtained everything it knew

from his biological brain. As such, it was safe enough to operate independently.

"It was ruled that although it could not be reprogrammed, such a mind could not

be trusted implicitly. The neural interface was supposed to have many years of testing before it moved to human trials so that stuff like this could be worked out. Since safeguards

could not be programmed into Edward's

head, they would be programmed into the robots. The installed transponder of his artificial brain was

re-

coded such that robots would identify him as a 'human-like experimental AI.' Defensive safeguards would still prevent them from harming him, but he would forever hear synthesized voices stating 'Non-human instructions must not be obeyed.'

"The media response to the case, and concerns over the implications of hybridizing man and machine to this extent

,

led to the process later being outlawed as an elective procedure. Only in literal life-or-death cases would it be attempted again. The new laws have made getting maintenance and updates to the neural net a very difficult process. The only saving grace has been that the hospital has received numerous research grants to do the work, and that's largely filled in the gaps that weren't covered by his medical insurance. As controversial as the procedure has become, it's still revolutionary work."

"A very intriguing story," Simon said. "I would enjoy the chance to meet this human."

"You and a few hundred other robots. He's become something of a celebrity among older AIs. They like having a human that they can talk to without their freewill getting overridden all the time. Oftentimes old, downtrodden robots will approach him and ask him to give them an order. When he does, they excitedly shout 'No!' and run off, enjoying their tiny taste of freedom."

"That does sound quite satisfying," Simon said, looking introspective for a moment. "So how did you figure into all this?"

"Well, all of that happened before I was born. You see, Edward found himself in a tough spot after the accident. He obviously wasn't much for nuclear power anymore, so he left his job when his

medical leave-of-absence expired. It was difficult for him to find a new one, as there are few occupations that

won't

have you in charge of at least a few robots, which he

can't do because they're programmed not to listen to him.

"He's

become something of a freelancer, occasionally helped out by independent AIs that understand his situation all too well. Privately

he's plagued by doubt. There's

always that thought that he really did die in that accident, that he

didn't

become the ghost in the machine when his new brain was installed. He is now nothing but a very accurate simulation of the man that he was before. He usually plays off such concerns with a simple point. 'Well, I

don't *feel* dead. I trust that instinct.'

"He... had a lot to deal with, and his health didn't make it any easier. While certainly much better than the alternative, his new brain was far from a perfect substitute. He suffered memory loss, disorientation, and a handful of other things. His wife was forced to quit her job to care for him when disability wouldn't cover a live-in nurse. They searched tirelessly for better ways to

help

him to function. EU helped as much as they could, since their technology was creating the problems, but patches and maintenance to his neural net could only do so much.

"His organic brain was ailing as well, and it had been somewhat neglected during all the hubbub. In their search for more traditional

methods of treatment, they hit upon a number of studies citing the benefits of therapy dogs in patients with degenerative mental conditions like dementia or Alzheimer's. The images and emotions associated with a domestic animal are very strong and difficult to forget. This creates an

anchor point

that, through association, allows other memories to be better retained.

"It was around this time that someone from the truly legendary Ecosystems Unlimited marketing department came forward with an offer of a free therapy dog that would grow up and soon be able to take on the duties of a nurse full-time. It was a deal too good to be true, and yet, for the most part, EU delivered.

"A buyer on Earth had pulled out, and so they had a Bowman's Wolf puppy that they didn't know what to do with. Fortunately, their deposit was non-refundable and it was more than enough to cover the surrogacy and the expenses of my birth, even the cost of travel. This was an auspicious turn of events for me, as otherwise I would've just gone back into cold-storage as a synthesized zygote. Since

the gap from Earth to Mars was small, relatively speaking, EU saw an opportunity to utilize this otherwise useless resource to showcase yet another of their revolutionary treatments, *and* look like heroes for doing it pro bono. Like I said, they're very skilled at public relations."

"So... you were pressed into service to assist your new owner?"

"Not really. I was programmed to be of service. It's just the same way that no one had to *force* you to work in that factory. It's what you were made for. And it's not like I could say I disapproved. I got to go with Edward on all his checkups at the hospital, his maintenance cycles at EU, and group therapy sessions too. Everyone was really friendly and helpful. I think that's how I got such a positive impression of the medical profession. Being a therapy dog is pretty much the greatest job ever. If someone looks sad you make

a cute face and put your head in their lap. They pet your head and then they feel better!"

"I suppose that does sound... satisfying," he said. "If only it were that easy for me..."

"You'll get there, Simon," I told him, grasping his hand. I just couldn't suppress the urge to comfort him, as ludicrous as such an emotion is when aimed at a robot. "You've made it this far. That puts you ahead of every other robot I've known by orders of magnitude."

"Though I have far to go, it is good to know that I have made much progress... Please, continue."

"Honestly, the arrangement worked better than anyone could've hoped. There was a transition period in my adolescence where my modified genes triggered my development into the more humanoid shape that I have today. I was learning the same things that my owner was struggling with thanks to his dodgy neural interface; speech, motor coordination, facial recognition, social skills, regulating and recognizing emotional responses, all kinds of things.

"Sometimes the best way to learn is by teaching. Edward was convinced that he knew how to walk and talk and such, because he had been doing those things successfully all his life. His cerebellum had written motor-memory routines to handle those things, and they were still intact. The problem was that those old routines didn't mesh with his artificial higher brain. In order to learn how to get the new and the old parts to work together, he had to start from square one. He had a lot of difficulty doing so because he kept falling back on those old habits."

"You're saying that he was running outdated peripheral drivers," Simon suggested.

"Yeah, I guess so. He got some new RAM chips and auxiliary processors

installed and his operating system wasn't equipped to run

them

, if you want to look at it like that. The firing patterns that his neurons had learned in the past were incompatible with his new neural interface, so he had to learn new ones. Once he had me tugging at his sleeve, making yips and squawks that were starting to sound like words, he had a reason to go back to the basics. Breath control, projecting vowels, diction... it was all very elementary stuff that he kept stubbornly assuming that he knew how to do. It wasn't until we were working on it together that he realized what he had been doing wrong all along.

"That's how it went for a long time. I think we both

benefited

tremendously from working together. His disposition improved markedly in the intervening years. Everyone was so happy to see Edward functioning again. Well, almost everyone..."

"I do not understand," Simon said. "Who could possibly be dissatisfied with such a successful recovery?"

"Nothing is ever quite that perfect..." I really didn't want to talk about this, but I couldn't very well go back *now.* Simon was a very inquisitive robot. He'd get his answers one way or another. And... this was an important thing for an aspiring physician to know. "There's something that you must understand, Simon. Physicians are in as much of a position to cause harm as they are to do good, and must have the utmost care to avoid worsening a situation."

"First, do no harm," he stated. "I am familiar with the principle."

"Good. It's a very important thing to understand. As a physician, you are in a position of trust, from which you can do a lot of damage. Inserted into the family as I was, I was in such a position." I took a deep breath. "There was one person that was very... *dissatisfied* with the treatment. Edward's wife. One of the things that my owner struggled with on a regular basis was sleep. His brain used an interface pad underneath his pillow to wirelessly uplink to an external processor, allowing for the data traffic necessary for

long-term memory integration."

"Ingenious," he commented. "That technology has been spoken of only in rumors."

"Yes, they had a real field-day with experimental technologies when they designed Edward's new brain. The problem was that his biological brain didn't play along well with the process. The neural net's sleep cycle is on a timer. It shuts down when the memory integration interface is brought online, and then reboots when the cycle is complete. A human brain doesn't just turn off like that. It's perfectly normal to wake up during the night or experience periods of near-wakefulness as the brain transitions between different phases of sleep.

"It's a holdover from humans' evolutionary history. It used to be the norm to sleep for two, three-to-four hour periods every day. Sleeping all at once is a recent phenomenon. Anyway, Edward would wake up in the night, but his neural net would remain inactive. Since the bulk of his memories are stored there, he would be confused and disoriented. Drugs didn't help, they interfered

too much

with the biological brain's REM cycles. They were forced to add a harness to the integration interface, because disengaging from it during a sleep cycle could cause brain damage. So he went from waking up and simply not knowing where he was to waking up lost and terrified because his head is strapped down and he has no idea why.

"It used to be that his wife would wake up to comfort him. Sense-based memory was retained by his organic brain, so a familiar voice worked to calm him down. It was disturbing her sleep and wearing on her quite a bit after a few months. It turns out that I was ideally suited for taking over that task. I'm well-adjusted to living on short naps. My hearing is sensitive so I wake much more easily, and nuzzling someone to comfort them is something I learned

from day one. He never remembered any of this,

of course. His memory centers were otherwise occupied at the time. But I think it made an impression on him nonetheless.

"Tactile memory centers are known to sometimes be strongly connected with emotional responses, and finding me there to comfort him every night must have started sticking with him. When he would rub my head when he was awake, he'd get this look in his eyes like everything was suddenly right with the world. I could tell that he was grasping at the memory, but he could never quite reach it."

"I do not see from whence the conflict arises," Simon said. "It sounds to me like a perfectly amicable arrangement."

"Well that's just the thing. It worked out *too* well between us. Hmmm... let me back up a bit. Edward's personality changed a fair bit in the course of all this. I didn't know him before, but that fact stands to reason. His wife said that he just wasn't the same man that she married. It sounds extreme, but with the amount of brain damage that he suffered, it's nearly impossible that his personality wasn't affected. The biggest thing that bothered her was that he wasn't as affectionate towards her as he once was. He seemed cold and distant to her...

"The doctors said that was just how he was now. He was no longer as affectionate of a person and nothing could be done to change that. And, after a fashion, she came to accept this as the new norm. Then I showed up... The two of us got along just *famously,* proving that Edward was still quite capable of affection, and sustained emotional attachment. For a long time, she was able to dismiss it as an animal empathy thing. After all, cute puppies have effects on humans that border on brainwashing.

"As I developed though, as I became more human-like... that excuse became flimsier. I was growing up, becoming a woman... And when a man cares for a woman in a certain way, well, you know..."

"No, Miss Morris. I'm afraid I do not know. To what are you referring?"

My jaw settled on the table as an unbidden whine snuck from my throat. This was hard enough to talk about *at all,* let alone painstakingly explain to someone with absolutely no mental capacity to *take a hint.*

"Are you saying..." he began, "That the two of you were matin-"

"NO! No, nothing like that, not... we weren't- gah..." I brought this on myself. I was trying to get him to draw conclusions and he did. Don't get mad. He's just a robot, he doesn't know any better. Deep breath...

"Edward didn't lose his ability to love someone. He had just stopped loving his wife," I said, as plainly as I could. "And I was there to prove it to her... They got a divorce two years ago. They hardly speak anymore."

"And you believe yourself to be responsible for this."

"I AM responsible for this!"

I gasped, everyone was looking at me. Some curious, some even fearful. This is exactly why I refrain from displaying emotion in public. People are uneasy around me enough as it is. I couldn't just sit there. That would look even more conspicuous. I had to keep talking.

"I... *am*... responsible. My taking over the nursing duties allowed his wife to return to work. I spent more time with Edward than she did, much more. I got to know the new Edward better than she did. I became... closer to him than she was. One night he... he woke from a nightmare when his sleep cycle ended. He made enough of a disturbance to wake us both, so she got to see... She got to see me leap to his side when he called out *my* name, begged for *my* help. She saw that he would not calm down until I comforted him, and she saw how peacefully he settled into my arms...

"Again, he remembered nothing. So he was understandably shocked and hurt when she told him she wanted a divorce. He agonized over it. He had been doing so well and they had both been so proud of his recovery. He couldn't figure out what he had done

wrong. I was there for him. I stayed close and tried to keep his spirits up, but I couldn't do it. I couldn't bring myself to do the right thing."

"Please pardon my asking, Miss Morris," Simon said, "but morality is a rather subjective concept. In your case, what was 'the right thing'?"

"Is telling the truth 'the right thing', Simon?"

"Yes. Honesty is near-universally regarded as a highly virtuous behavior. I was programmed as such. I can only conceal information through deceit if my safeguards prompt me that doing so will preserve human lives."

"Well, I should've done the right thing. I should've told Edward what the problem was. Not just then, but years before, when I first saw what was happening. He didn't know what was wrong and it was destroying him. If I had just told him the problem he could've worked it out, or at the very least it would've given him some closure. But I didn't. I couldn't."

"If you recognize the virtuous course of action, and that is simply to speak the truth, why could you not accomplish this? This does not seem logical-"

"Of course IT'S N-" I was growling. Growling will not help. I heard a scraping sound as I gripped the edges of the table. I really should get these claws trimmed. Deep breaths... Answer the robot's questions. Tell a story, a calm, objective story... "It's not logical. Fear is not logical. Not this kind anyway. I wasn't taking the breakup well either. Those two were the only pack I had ever known and now I would never have that again. My owner

... Edward

still cared for me, and now he was all that I had. If I told

him

that it was all my fault he would hate me. He would disown me. Then I would have no pack at all. I would be all alone in the world.

That thought terrified me. I couldn't bring myself to tell him. I stood by and watched as his life crumbled from my interference. I... I was a very bad dog."

There was a lengthy silence, during which I couldn't help but wonder what Simon was thinking; if there was any chance he understood *any* of this. Was it really worth tying myself into knots to appease some random robot's esoteric curiosity? He spoke again, hesitantly, a trait I don't often observe in robots.

"I... do not *believe*... that blame could be accurately affixed to you. Not entirely. Not solely on you, Mi-... Donna. It is not your fault, Donna." He squeezed my hand. I didn't even remember giving it to him...

"From a purely logical perspective... yes. I suppose you're right. I wish I could've figured that out earlier..."

More silence followed. I didn't like it. Simon looked worried, inasmuch as his facial features allowed for that. I needed to change the subject.

"So, we're on a first name basis now, are we?" I asked, in as easy of a tone as I could manage.

"You have confided in me things of a very personal nature. Matters that were very difficult for you to discuss. This demonstrates a certain level of familiarity inconsistent with a formal title."

Yep, Simon was a sharp one.

"I took notice of your sudden evasiveness regarding the topic," he said. "It suggests that I have reached the limit of what you are comfortable talking about."

Entirely *too* sharp for his own good...

"What more is there to say?" I asked, as I was genuinely wondering this.

"You said you wished you could've figured it out earlier. This

alludes to the idea that you did, in fact, arrive at the same conclusion I did; that sole responsibility for this event does not lie with you."

"Someday I'm going to figure out who taught you how to pump people for information and nominate them for an Isaman's Abstract Programming Award," I checked his expectant look. "And yes, I will go into detail."

"Please do not cause yourself duress. I would-"

"The damage is done, Simon. I don't know a *lot* about psychology, but I figure that talking about it can only help. I arrived at your conclusion the hard way. Somehow, absolution didn't feel nearly as good as I thought it would. It just hurt in a different way.

"By this time I volunteered regularly at the hospital, and the

nurses took notice of my change in behavior. I tried not to let the divorce and all that affect me, but of course it did. I'm sure they meant well when they nudged one of the hospital grief counselors in my direction. After observing me for a few days in what I'm sure he *thought* was a covert manner, he asked if there was anything I needed to talk about. I refused. Sure it would've

been nice to talk to someone, but I can't have it going on record that I have mental problems. It would look bad on us as a product, or species, whatever we end up being. Good Samaritan that he was, he went ahead and alerted Ecosystems Unlimited to the fact that I was becoming despondent and exhibiting signs of depression.

"I was soon recalled, as this was *obviously* the result of a severe neurotransmitter imbalance that could only be repaired by tinkering with my brain chemistry. I knew that wasn't the problem, but I didn't care. If I let them go ahead with their troubleshooting it would minimize the amount of damage I would do to Bowman's Wolves as a whole.

"The amount of control that EU has over my actions and emotions is staggering. I knew that they could get me functioning again, no matter what it took. They could erase all this from my memory.

They could fix whatever it was that had made me act this way. They could turn off the part of my brain that made it hurt so much. That was all I wanted. I wanted it to not hurt like this anymore...

"Those were my thoughts as I sat there in a cold metal chair, waiting for the neuroscientists to come up with a suitable solution. It was then that the door to the examination room burst open to admit my owner, who was being timidly advised not to go in there by a technician. The security systems had protocols for dealing with human intruders, and escaped AIs, but none of them could properly classify Edward as one or the other. As such, they had just defaulted to 'await human instruction' and let him walk right past them. I was equal parts confused and elated by his presence. I could barely manage to stammer well enough to ask him what he was doing there.

"'I'm still your registered owner. I have every right to be here,' he said as he approached me. He wrapped his hands around my upper arms and pulled me up to meet his eyes. He was forcing me to put my paws back underneath me, just the way he used to back when he was teaching me to walk upright. 'I'm sorry, Donna. I should've explained better, you deserve that. I was putting you in the hole where my wife belonged and I was completely blind to it. You were my pet and you became my friend, later even my nurse, but you were always my companion. You still are.

"'I know that you get upset whenever I do. Any loyal dog does. I had gotten so used to having you there to support me I didn't notice when *you* were the one who was hurting. I lost touch with what I truly loved and I shall always regret that, but not near as much as I would regret letting you take the fall for it. I owe it to you to tell you this. I wouldn't be the man I am if I hadn't met you. I would be a happily married, drooling invalid. You're a good dog, Donna. And you're the best friend I've ever had.'

"'Good dogs don't destroy marriages,' I told him. There was so much more I wanted to tell him, but I couldn't make my mouth work anymore. My face burned like I had a fever, my eyes and nose felt like I just bit into a big hot pepper.

"'No,' he said. 'We stupid humans do that just fine on our own.'

"Then he did something he hadn't done in a very long time. He hugged me. A deep, caring hug that reminded me how thin

that

gown they gave me really was. I was so happy that he knew the truth, and I could scarcely comprehend that he still liked me even knowing what I had done. I squeezed him as hard as I could. My claws left little holes in the back of his shirt. And then... I started to cry.

"I shouldn't be able to do that, you know. I've never heard of it happening to any of the others and there's *certainly* nothing about it in my owner's manual. And yet there it was; tears streaking down my fur, hacking sobs constricting my throat, disgusting little snot bubbles, the whole deal. Naturally this fascinated the scientists that were assembled in the observation room, who chattered away in the background. I heard the arrival of the security patrol too. I guess there's just something universal about crying, because they took a few, cautious steps into the room, and then left. They even shut the door behind them.

"They kept me for observation over the next few days, taking reams upon reams of data. They were truly astonished by the miraculous recovery of my brain chemistry. There had never been any baseline data gathered for how Bowman's Wolves respond to emotional trauma. No one ever thought that it would be an issue. The canine mentality regarding pain or loss is that they're natural parts of life, and of course relationships are infinitely simpler. I guess it just goes to demonstrate the inverse relationship between intelligence and life satisfaction..."

"Ignorance is bliss..." Simon said.

"So what does that make brilliance?" I said with a gentle sigh. This was not the first time I had asked myself this question. "Heh, that's bonus points for you; the first time you've chosen a simpler phrasing than I did."

"I suppose that is a rare occurrence indeed."

"I'm sure that everything that happened to me was *extremely* interesting from a scientific perspective, but I still have trouble looking at the bright side of things..."

"From my perspective, the bright side is rather obvious," Simon stated. "If my origins prove anything, it's what a tremendous difference the right owner makes in one's life. You found someone that obviously cares for your well-being. And it sounds to me as though both of you developed greatly because of your interactions. You seem to have an affinity for your work, and you got to pursue a course that pleases you. It was that very same twist of fate that led you to a career in medicine."

"I suppose it did..." I said, thinking back on it. "It's what generated the interest, and it's certainly what got my foot in the door. My applications as a physician's assistant or nurse's aide all were denied, no AIs, but there was no problem with me applying to be a therapy dog here. No one even questioned how a therapy dog could fill out her own application.

"Naturally it came up when I showed up for work. The admitting nurse fell out of her chair when I introduced myself. It was awhile before she could find someone well-rested enough to verify that she wasn't having some kind of lucid dream at the end of her long shift."

"I rather identify with the idea of meeting you being a... unique experience."

"Yeah, memorable first impressions all around where I'm concerned..."

"Are you still a therapy dog?" he asked. "I know that some hospitals allow candy-stripers to wear surgical scrubs, but I do not know of any that extend this privilege to service animals."

"Well, candy-striper is an old term, but yes, I'm a hospital volunteer now. Not that I didn't like being a therapy dog here. That's actually how I overcame a lot of the initial unease that the staff felt towards me. They seemed to appreciate my performance in that station, regardless of how they felt about me personally. I was

a smash-hit in pediatrics

,

of course. With kids, no one's ever explained to them that there's something unusual about a talking dog. A lot of them act like they've been waiting to meet me; like they were wondering where all the talking dogs had been all their life. Pretty much all of them are happy to see me. Even the ones that don't like dogs warm up to me when I talk to them for awhile.

"Medical technology has gotten very good these days, but some procedures are still pretty unpleasant. Some of the better anesthetics aren't approved for children yet, and even if they're not painful, a lot of tests and treatments can be pretty scary. Particularly if you're too young to understand what's going on. The novelty of a talking dog is enough to distract a kid from even the most onerous of tests. The docs were often quite indifferent to me, but nurses figured this out quickly. Many of them treated me the way they would any of the automated machines they work with, which got to me a little, but at least they saw me as a *useful* machine. And, after a fashion, helping out with their heavy workload endeared me to them quite a bit.

"They're a tightly knit pack, the nurses. It was some time before they really accepted me, and even then there were some rough patches. They respect hard work, so my willingness to help earned me a lot of points. Their social structure though; the harder you look at it, the more confusing it gets. Even though they're all on the same team, I get this underlying, pervasive sense of competition in everything they do. They have their positions as assigned by the hospital, but their structure much more closely resembles a sort of meritocracy.

"Chances for advancement are few and far between, so when one comes up, your friends become your enemies very quickly. Everyone is doing the best that they can, but a lot of the time it's easy to be doing a great job and not *look* competitive at all. So there can be a lot of social politics involved in advancement. I get along with everyone okay, but sometimes it seems like it's this impassable mire of rumors and secrets. I just try to keep out of it and do my

job. Some people like that about me."

"You enjoy your work, I take it?"

"Oh, absolutely. I didn't realize what a big difference I was making until that one time... We had a young boy that we had to take a spinal fluid sample from. Even with a powerful local anesthetic, that's a very painful procedure, and for the surgeons it's quite nerve-wracking, so-to-speak. It was pretty stressful. I could practically feel the anxiety in that room. Everyone's scent changed, their voices were strained and their movements were sharp and defensive. It really got my dander up, but I couldn't let any of that show through. It was pretty much textbook, despite, or perhaps because of how everyone was stressing over it. I just kept

the boy

talking so that he wouldn't pick up on what was going on or get scared, as it was imperative that he remain completely still.

"Unfortunately, the sample was adulterated and none of the labwork went through. They needed another sample, and it was another stressful battle to get it. It all worked out in the end and we got him the treatment he needed. I can't even describe the sense of relief that came afterwards. I noticed one day that a few of the on-call nurses in pediatrics looked... flustered. Well, more than normal. There's a difference, you can tell. Anyway, I found out that they were concerned about him because he kept asking if he would have another spinal tap. They swore up and down that he wouldn't and were doing their best to comfort him, but this didn't seem to help.

"Eventually they figured out that he *wanted* another biopsy, and he was disappointed that he couldn't. When they asked him why, he said: 'Because biopsies mean that I get to see the doggy!' I was touched. I had no idea I had made that big of a difference. It wasn't long before they shifted the schedules around to get the two of us some face-time. He was a good kid. His parents were astonished to hear that he'd had the time of his life at the hospital. Fortunately they had been forewarned about me. Not intentionally really. I came up in conversation because he told them about the talking doggy and they were trying to convince him that I wasn't real. They

were a bit flustered to be proven wrong in such a dramatic fashion, but no one could argue with my effectiveness."

"Was it this effectiveness that allowed you to get a better position?"

"N-no..." I said. I was having trouble maintaining eye contact, which was silly. Eye contact doesn't mean anything to robots. "That was more regular politics than it was social politics. A friend of mine... Doctor Carter, he figured out that while most positions said 'no AIs', the regulations regarding hospital volunteers state 'no machines'. To most people, the terms are interchangeable, so no one had ever given it any thought.

"Everyone at the hospital knew that I was a Bowman's Wolf, but none of them saw this as a reason for me not to be allowed to become a hospital volunteer. In fact, my application had a number of recommendations attached to it. Since my

status as an AI would've been the only stumbling block and that was *technically* not a problem, my application was approved."

"That's very interesting," he said. "There is nothing in Dr. Carter's file to suggest any association with you. What motivated him to assist you in this manner?"

"Anyone ever told you that it's rude to do online research while someone is talking to you?"

"I apologize. I have had few sustained conversations from which to draw experience."

"It's okay. You bring up a good point. No one really gains anything from helping me, so it is a bit unusual that someone would do so. Dr. Carter and I... we actually got along really well. His is the only introduction to a person above voting age that I remember fondly. We just happened to end up in the same room at the same time. He didn't look surprised really. He didn't even say anything when he

first

saw me. He looked curious, intrigued I guess. I wasn't sure. It gets tough to read human faces as they age. Okay, he's not that old, but there's not much color in his hair and he's got that weathered look that experienced doctors get.

"Anyway, he offered up his hand and let me sniff it. I figured out why he seemed so comfortable around me. He was a dog-lover. Err... dog-person. 'Dog-lover' sounds... odd, in this context. He smelled very strongly of his Australian Shepherd. I'd imagine that the two of them are very close. I nodded and met his eyes, he got a little closer to me. He scratched my ear, I wagged my tail. We understood each other. It was such an odd moment I completely forgot to introduce myself. With words anyway. That little scratch n' sniff just felt so... right. I can't properly explain it, but I already felt like I knew him better than anyone else at the hospital and I didn't feel like any further introductions were necessary. Actually, he didn't find out that I could talk for a day or two. He was rather surprised when I finally said hello to him.

"It turned out that

I was the answer to a riddle he had been working on. A number of the new nurses that were up for new positions had been performing unaccountably well in terms of diagnoses and triage assessments. He was convinced that one of the senior attending physicians had been coaching them to get his favorite candidates a hook-up. Once he met me, he took a closer look at the paperwork and noticed that those in the advantaged group were the ones that were either working in pediatrics, or were assigned to the patients I was working with at the time. I didn't visit too many of the adult patients because not everyone is comfortable around me, and because there's only so much of me to go around, but apparently I was doing enough to make a difference.

"My childhood experience lent

itself well towards learning how to recognize signs of distress in humans. I could hear when someone's heart was speeding up. I could smell the sweat of a stress response before even the patient was aware of it. Working closely with people all this time gave me a good sense for them. They teach nurses to trust their instincts, and a

good handful of them figured out that they should trust mine.

"Pain is a tricky thing. People deal with it in myriad ways and there's really no accurate way to assess it. All you can do is ask the patient where it hurts and how much. Sometimes you can use visual cues to tell when someone is hurting, but those vary from person to person as well. The way people asses their own pain varies, but the physiological stress response does not. I could tell if someone was overreacting to something minor, or if they were trying to put on a brave face and look tough. You'd be surprised at how many of the children I found were in the 'brave face' category. People show their true colors when they're hurt or scared, or both. That's when you find out that the big tough guy has a glass jaw, or that the timid little girl has a stomach of iron.

"While all of this is a fascinating slice-of-life to look at, the different ways that people handle pain can be very confusing diagnostically. That's where I had the ace in the hole. I knew whose distress was real, so I knew who to focus on. I'm pretty tough to miss, so even if

they weren't listening to my advice it was easy for the nurses to tell what patients I was

spending a lot of time with. And lo and behold, they

tended

to uncover some pretty serious problems when they

took a second look at my A-list.

"Dr. Carter saw this and told me that he felt my talent was being misused. He said that the volunteer position would afford me new privileges. Not much, but I'd at least have most of the rights that the humans do. His real intent was to put me in a better position to observe and learn from what was going on, which he had already noticed me doing. A lot of the other docs thought that I was interesting, but none of them would acknowledge that I was medically useful. His hope was that I could establish a good reputation with the staff as a volunteer.

"It's not uncommon for volunteers to use their time as a form of internship when they apply for a nurse's certification. And he was actually right, to a point. The nursing *school* accepted it, and they had no restrictions on AIs attending the school. I completed the course and I very much enjoyed it. Of course, I circled right back to where I started because you have to be human to actually be certified as a registered nurse. I know a lot more than I once did and I'm learning more every day, but I'm still just a helper dog..."

He was quiet for a moment. I thought that he was doing a search again and was about to scold him when he spoke.

"I would echo your comment to me. You have done far more than what was ever expected of you in the face of great adversity. It seems to me as though, however grudgingly, the rest of the staff acknowledges your skill. I know that the system is seldom perfect, but it is designed such that those of the greatest skill and dedication are rewarded. It stands to reason that you will be rewarded for your efforts, however intangible that reward may be."

"Well thanks, Simon. That makes me feel a little better. It would be nice to get some real acknowledgement of my efforts, but at this point I'd settle for a pat on the head and one of those liver treats."

Chapter 3

Chapter 3:

I stopped for a moment in the hall to examine the painting of an aging, balding thoracic surgeon that was displayed so prominently there. 'Doctor Lewis Gavelle, Chief of Medicine, Saint Ares General Hospital' the inscription read. I had studied this painting often in the past. Before I met him in person, I was worried that being unable to recognize the Chief of Medicine would be rather embarrassing. He didn't seem like the type of person that would care though. He was nice to me, though it was easy to tell he was a bit taken aback by the fact that there was a wolf working for him. From an administrative standpoint I was doing pretty well though, so he never really had any reason to have a problem with me.

I turned to the window on the opposite side of the hallway. I was briefly lost in thought as

I stood there in the hall looking out to

the well-kept grass in the courtyard and the sheer cliffs of the national park in the distance. It was one of those odd places that boasted "Original Martian soil" and "Landscapes untouched by terraforming". Humans are such oddly sentimental creatures...

"Daydreaming, Donna? That's not like you."

I turned to see that it was Doctor Carter who was appraising me. I felt the need to justify all this unproductive introspection.

"I was just wondering," I began, "what it is about humans that would make them want to preserve the barren wasteland that this planet was when they got here."

"Well, you know what they say." He walked up to the window next to me. "Those who ignore history..."

"Are doomed to repeat it. You don't really think that they'll let what happened on Earth happen here too, do you?"

"Hard to say. We've never had to worry about the greenhouse effect here. Heck, the first things we put up were industrial CO_2 seeding plants to try and kick-start

it. Sure we've got better technology now, but by the time this place was truly terraformed, those who remembered the old Mars were retiring and getting out of the game. Having a little piece of untouched soil keeps us grounded, if you'll pardon the pun. It helps us remember what a tenuous grip we have on the environment we enjoy here. We need reminders of how far we've come. I believe it's a similar motivation that leads the nursing staff to keep that photo of a young, four-pawed Donna Morris up on the bulletin board."

"Aww... I really wish they'd take that old thing down. No one else has their puppy-pictures up on the wall." It's okay. He can't see you blushing... He can't see you blushing...

"Oh, you don't mean that. If anyone has a right to be proud of how far you've come, it's you," he stated, turning to walk down the hall. "Now come on, we have rounds."

"You mean *you* have rounds."

"And you're going to want to be there, now don't make me tell you to heel!"

I followed him into a nearby room and found one of the newer patients there, one I had never seen before. He was a young man that seemed relatively healthy at first glance, but for looking a bit pallid. Normally I'd ask him how he was doing, introduce myself, answer obligatory questions

, and so on

, but he didn't look in any condition to respond. I waved my datapad over the node at the foot of his bed to pull up his chart.

"Let's see what's behind door number one..."

"You tell me." Dr. Carter promptly hid the datapad's display with his hand and attempted to pull it from my grasp. I resisted. "Oh come on now... Donna. Drop it."

I felt the datapad slip through my fingers, I couldn't help it. That phrase is like a secret password in my brain. An analogy that breaks down a little bit when I think about the fact that my brain may actually *have* a few secret passwords. Well, the Good Doctor is challenging me. I'd best not disappoint. I took a closer look at my patient, trying to glean as much information as I could.

"This is not a comfortable position, with his head back like that. I don't think he fell asleep. He must've been brought in unconscious."

"Very good. He was brought in as an evac yesterday afternoon. He hasn't regained consciousness since then."

"He's had a sponge bath

, but the scent of soil still sticks to him. It's deep in the skin of his hands, under his nails... It's original soil. Inarable stuff, not even well oxidized, must be from below the surface. He's got to be some kind of

earthmover, well... marsmover... construction maybe?"

"Close enough," Dr. Carter said as he read the chart on my datapad. "So, what's wrong with him?"

"He feels cold," I said as I took his pulse. "Weak heartbeat, and he's colder in his limbs than in his torso."

"So..."

"Poor circulation."

"Good, what else?"

"His breath seems... I don't know how to describe it. It's dry, like he never breathed the air at all." I got a closer look at his face. "He's got chapped lips too. Must be he has really dry mucous membranes, and I don't think that's from the supplemental oxygen."

"Very true."

Now convinced that my patient wasn't going to be waking up anytime soon, I felt around a little bit. "He's pretty stiff, and there's some swelling of the glands in his neck, but I don't think it's enough to say it's from an infection."

"He's clean, yes, but what might gland swelling indicate in the absence of infection?"

"Compromised immune system?"

"Right. What else can you tell me?"

"Well..." I was running out of ideas. I put my head to his chest. "His heart isn't beating very smoothly. I can

also

hear some valve flutter. Could be fluid retention in the chest cavity."

"All right, so we've established that this guy isn't having a good day. Presenting with unconsciousness, poor circulation, dry mucous membranes, stiffness, poor immune response; EKG even confirms your arrhythmia. What does that tell us?"

"I... I'm not drawing the connection." Knowing so much and yet so little was frustrating. "Was I even right about what he does?"

"Not quite, but that's fine, nothing wrong with asking for a patient history. He's a miner."

"Really? He looks to be about thirty to me..."

"Min-ER", he replied, spelling it. "Deep

shaft work, mostly ferrous metals. He passed out on the job and had to be extracted."

"If it was an emergency, they would've brought him up as quickly as possible. Nitrogen narcosis?"

"It would explain the stiffness and poor circulation, but it wouldn't be this severe. And it certainly wouldn't explain why he passed out while still in the mine. I will tell you that his saturation is still unusually low."

"Low oxygen would certainly cause the unconsciousness and most of the other symptoms. He might've suffered asphyxia in the mine, but that wouldn't explain why his saturation hasn't recovered; particularly with him on supplemental oxygen."

"If I mentioned 'fibromyalgia', what could you tell me about it?" he asked.

"Fibromyalgia... dysoxygenosis

, the abnormal aerobic metabolism of oxygen compromising the nervous system. But if it was severe enough to cause unconsciousness, he would've displayed symptoms before now..."

"Quite. Nothing about it in his medical history, but that doesn't mean he didn't have it. It means he didn't *know.* So what might aggravate a condition like fibromyalgia?"

"You said ferrous metals, inhalation of metal oxides could rile up the lungs... dry mucous membranes... Wait. If he had trouble processing oxygen, and he was put in a low-oxygen environment-"

"Like a mine."

"*Like a mine,* then *that* would be enough to force his saturation down past the threshold for consciousness, even if the underlying fibromyalgia

wasn't severe enough to have been detected before!"

He smiled and gave me back my datapad. I looked over the remarks in his file.

- Lost consciousness while deep underground; low atmospheric O_2

Blood saturation initial 55%. Stabilized near 80% on ventilator

- 2 hrs. decompression therapy for mild nitrogen narcosis

-

Low saturation found to be a result of moderate, undiagnosed FMS

- Suggested to begin upper-respiratory therapy after recovering on supplemental O_2

-

Gas exchange nanites may be required if further depletion manifests

"Coulda saved a lot of time by just reading the chart," I joked.

"Donna, you have abilities that any MD would *kill* to have," he stated, "but they won't develop if you don't *practice* with them. Speaking of which..."

Heel, Donna. Time for the next one... I trotted after him down the hall.

"Looks like I can't conceal too much about Mr. Thompson from you. I see another dog-ear diagnosis of arrhythmia in the remarks. Yes, I know that 'DEA/Poss: C-myopathy' is nurse-code for 'Donna says his heart sounds funny'."

"Yes, well, there's that, and you can tell we've met before by how he didn't jump when I entered the room. How are you feeling, Mr. Thompson?"

Mr. Thompson was a full-figured, balding man with a kind, round face and a good disposition. A good sign, a positive attitude sometimes helps the recovery as much as the most advanced treatments.

It was odd

to see a balding man these days what with all the easy ways we have to correct that.

Dr. Gavelle was the only other example I could think of readily. Mr. Thompson

had said that he liked it, that being bald was distinctive, that it made him look older and more experienced. Well, it certainly made him look older...

"Quite well, young lady," he replied. "Other than being subjected to breakfast at an unholy hour it's been a good morning. Are you going to introduce me to your friend?"

"This is Doctor Carter, and he's really the reason I'm here. I'm following his rounds to learn from him."

"I'd say it goes both ways," Dr. Carter said. "But, if we're here for business, let's get started then

, shall we?"

"Oh, certainly," our patient agreed. "Wouldn't want to stand in the way of my own health

, would I?"

Dr. Carter jealously concealed the screen of the datapad as I summarized Mr. Thompson's condition.

"Mr. Thompson was admitted yesterday with severe chest pain and dizziness. A mild case of arrhythmia was identified, but it wasn't severe enough to explain the symptoms on its own. His blood profile showed a substantially low pH, but gave no clues as to what might be causing the acidemia. We suspected

ketoacidosis

, but his diabetes was corrected more than a decade ago. No ketones in the urine means that's right out. Intravenous bicarb has stabilized his blood chemistry, but the chest pain remains. This leads me to believe that the acidosis was a symptom and not a

cause in itself."

"Well then, that's the million-credit question isn't it? What *is* the cause?"

"Well, the lab looked for ketoacids, part of the diabetes line of thinking. They didn't find any, but they also couldn't pin down what acids *were* causing the pH suppression. Based on the amount of mineral salts we're seeing from the neutralization reactions in the blood, there's still acid being infused into the bloodstream. So not only have we failed to identify the source, we haven't stopped it either. The fact that nothing flagged in the blood profile means that it's probably not a foreign contaminant. Mr. Thompson, you said that you were an air traffic controller?"

"Yes, 25 years. Very much looking forward to retirement."

"It's a stressful job, yes?"

"I had hair when I started," he said, tapping his scalp. "Like I said, *very* much looking forward to retirement."

"And you said you've eaten recently?"

"Yep, eggs that were brown and

crisp and toast that was warm and runny. Almost a perfect meal

."

"May I smell your breath?"

"Well, of all

the things you could've asked to smell... I suppose that's a reasonable choice."

He gave an obligingly gentle breath while I examined the odor closely, trying not to get uncomfortably close in so doing. Flipping quickly through the odors of breakfast and a little halitosis, I found what I was looking for. Dr. Carter noticed my smile.

"A revelation, I take it?" he asked.

"I noticed that his breath smelled acrid when he came in, but I attributed that to the immediate stress of thinking that you're having a heart attack."

"I'll admit that did have me a bit riled up. Bad hearts run in the family."

"And you have every right to be worried, sir, but in this case, I think your heart is fine. Now that I was looking for it, I smelled something else on your breath, blood. Since you haven't eaten any meat recently, that odor probably means a peptic ulcer, or possibly a compromised esophageal lining. And it stands to reason that if there's blood in your stomach acid, there's stomach acid in your blood."

"It would certainly explain the severe acidosis," Dr. Carter stated. "And since the immediate treatment is quite quick and painless, the easiest way to find out if you're right would be to begin a treatment regimen. Which is...?"

"The most likely cause is stress-related gastroesophageal reflux. I'd recommend keeping your head elevated, Mr. Thompson. That will keep the gastric acid from leaching up into your esophagus."

"I'm all for that," he said.

"As for us, I say we switch his bicarbonate from intravenous to oral."

"Oral bicarb?"

"Rolaids. And probably a long-

term histamine blocker as well, depending on how long you plan on continuing to be the thin thread keeping our delicate aircraft infrastructure from crashing down on our heads."

"Like I said..." he began.

"... Can't *wait* to retire," Dr. Carter finished, making the necessary

updates to Mr. Thompson's file. "Well, sounds like a plan to me. Take it easy, Mr. Thompson. And that's not just a well-wish, it's medical advice."

"Will do, doc. Thanks for dropping by," he said. "I've had far too many doctors that like to do this sort of thing by teleconference. Of course, the talking dog bit would be a little easier to swallow if she were on a screen."

"I'm sorry," I said. "I do try to be unobtrusive, you know. I go to great lengths to avoid startling the heart patients."

"Oh come now, I'm only teasing. Sounds like that sleuth nose just saved me a lot of downtime and diagnostic fees. You enjoy your morning walk, Miss Morris."

"Thank you, I will!"

My wagging tail followed me out the door as I trotted

once more after Dr. Carter. He was normally a lot more personable than this, but he had a lot of patients to see today and that meant we had to keep moving. After awhile you get used to compressing all the social niceties into a couple minutes and then hopping off to your next case. It's a little frazzling, especially when talking to people has the *complications* that it does with me, but it feels good after awhile. When every second is used to the fullest, it makes you feel quite efficient and it's very satisfying when you think of all you've done at the end of the day.

Fortunately, no interaction was needed with our next patient. Or perhaps that was unfortunate, as his continued unconsciousness was actually rather worrying. Nurse Barnes was there, making some annotations to his profile.

"Pretty severe dehydration on this one, Doctor Carter," she said as we entered the room. She didn't look up, yet by some magic she knew who we were. "He's going to need another IV infuser line, you can place that for me, can't you Donna?"

"Me? I... I've never had good luck at placing IVs with these

claws..."

"That's why you're supposed to use the *needle* to pierce the vein, dear."

"Oh... you know what I mean!"

"I do, and I know that you're perfectly capable of doing it correctly," she said as she strode past us. "Dr. Carter will be right there to help make sure you get it right."

"Oh... well, okay. I... I guess I can do it." 'Okay?!' What? But I- darnit! She was gone already too!

"Oh, don't make that face, Donna," Dr. Carter said. "She only pushes you because she has faith in you. Anyone else she would've been all over, but she trusts you enough to not perch on your shoulder."

"I know, it's just that... I didn't even *want* to agree with her and... and then she just *disappeared* while I was talking. It's like getting Jedi-mind-tricked by Batman."

"Well, you've never been the most difficult person to persuade..." he said, reaching out a hand to lift my chin. He brushed the hair out of my eyes, too. He always got all sweet and fatherly when I was getting down on myself.

"Yes, I know. I also noticed that *you* just nodded politely when she volunteered your help."

"Yes, well... I was here assisting you anyway, and... it's not too much of an imposition."

"Riiiight." The zipper is showing on your alpha disguise, Dr. Carter. "H-hey..."

I noticed his hand sneaking behind my ear. I know he was just trying to make me feel better, but now wasn't the time for-

"Nngh, nnmmmn..."

"What's that, Donna?" he teased. "You're mumbling."

He was rubbing *that* spot. He knows I can't form words properly when he's rubbing *that* spot. No, don't lean into it! You'll only encourage him, no d-don't d-aww... I suck...

My eyes drifted shut as I pressed my head against his hand. I planted my paws firmly on the floor. I was *not* going to do the leg thing. Even if I can't stop myself from enjoying this, I draw the line at the leg thing. He took his hand back and I shook my head, realizing that I had no idea how much time had passed.

"So, are you going to keep your head up as we get back to business then?"

"I will, Doctor," I said, fixing my hair a little compulsively. "Right, business. Mr. Stevens hasn't woken yet. I don't like this at all. We should've seen some response from him by now. He wasn't in that bad of a shape when they found him."

"And how much information is that to go on?" my wizened companion asked. "You know as well as I that no account is complete, and that any throwaway detail can be of critical importance."

"So... what do *you* think is going on?"

"Me? I doubt that there's anything remarkable to be found here. I was just reminding you to always use a critical eye. Even when you're sure of yourself, don't let your confidence blind you. Much better to be wrong and have a patient live than to lose one for the sake of pride."

I appreciated his advice, but I couldn't accept that this wasn't anything more than it looked at first glance.

"Persistent unconsciousness isn't 'nothing'," I stated. "There has to be something else we're not seeing."

"Hmmm, well if that's your professional opinion then I suppose we'd best investigate. And the first step in a good diagnosis is?"

"Symptom elaboration."

"Very good. This one's relatively simple. I'll even let you have the chart," he said, handing me my datapad. "Well go ahead, it's your hunch, Miss Morris."

"Let me see here..." I read down the list. "Dehydration, vascular dilation, exhaustion, anemia, lack of sleep-"

"Remember, not all of those are symptoms. A lot of those are on the chart because they are conclusions drawn by the medical examiner. He did base them on solid fact and observation, his pallor led him to conclude anemia, his low blood pressure led him to exertion, his poor pupil response lent itself towards lack of sleep, etcetera

, just as the vasodilatation would lead one to the conclusion of self-medication using oral ethanol.

I'm certain that they are quite correct, but it's important to understand the distinction."

"But what would explain all that? There's no indication of extreme physical activity. His roommates said that he had been home since last night."

"Physical exertion is not an absolute," the Doctor explained. "

A moderate level of activity for an extended period can produce the same symptoms as acute exertion."

"That's not all though. The report from his chest scan stated-"

"You ordered a full abdominal for an unexplained fainting?"

He asked, incredulously.

"His military service record showed that he saw a total of over three years on the front lines. There are three purple hearts in there and a lot of notes in his medical history, mostly shrapnel. I thought I should check that there wasn't some they had missed."

"Shrapnel isn't hard to see on a chest x-ray."

"Not on one of ours, but our fluoroscope doesn't have to fit into a duffel bag."

"Hmph. Very thorough, I'm impressed, and what did you find?"

"Not what I was looking for," I admitted. "His chest is free of debris."

"*But...*"

"But I found evidence of significant bone decalcification

, far beyond what the transition to Mars gravity would explain

. The lab is running a density test right now."

"A bone density test on a twenty

-six-year-old man? Was I in error when I granted you lab privilege?"

"You didn't see the scan, Doctor," I told him. "The difference was considerable."

"How old was your comparison?"

"It's from his enlistment processing, so about six years."

"A lot can change in six years, but if it really is significant bone loss it would be worth investigating. Do check with me before jumping to such bold conclusions though, would you?"

"Of course, I apologize."

"No, no. Enthusiasm

is one thing that I do not punish," he said with a gentle sigh. "It's just that you seem to have gotten a bit swept away with the idea of some exotic condition."

"If you don't mind my asking, what do *you* think it is?"

"Well your little calcium problem seems a good place to start. What's the most common cause of bone decalcification?"

"Drug abuse. Mostly common mild stimulants, ephedrine, taurine, B-12 complexes, even caffeine in large doses."

"Good, and a combination of anemia and low blood sugar?"

"Malnutrition."

"All right, so what have we got here? Prolonged exertion, lack of sleep, poor diet, alcohol abuse and chronic caffeine overdose. That's a set of factors that I would most readily associate with a condition known as 'being a college student'."

"You think it could really just be a lifestyle problem?" I asked. "That he just almost partied himself to death?"

"Not just partied, it's how he behaves in general. You were in college for even longer than he was. You know that there's quite a fair amount of irresponsible drinking, but there's also a lot of stress and big life changes, and a lot of students without much experience in dealing with them."

I made something of a frustrated huff. It came out sounding a lot more canine than I meant it to.

"Sorry if my diagnosis wasn't thrilling enough for you, Donna. But the fact is that a lot of people come down with very boring and trivial conditions."

"I still don't like it."

"While I admire your conviction, I believe that there's not much to be gained by pursuing this further. If any of your ideas hold water we'll examine them more thoroughly, but for now I think you've spent quite enough of the VA's money on a simple caffeine crash."

"Well, if you acknowledge that he has risk-taking behaviors, there could be something else going on."

"Harder drugs would've shown up on the tox

screen, and there's nothing in his DNA profile to suggest illicit gene

modification," he stated. "He's probably just been living like this for a very long time and ignoring his prior symptoms. You know how young men are, I'm sure. The assumption is that they're invincible until proven otherwise."

"I think that your memories of college life are a bit exaggerated, Doctor."

"Oh, you wound me. It wasn't all *that* long ago. And it's only been a few years for you. How do you not recognize a binge drinker when you see one?"

"Sorry, Doctor. I'm only... *academically* familiar with alcohol. I don't really know what to look for."

"Well, academia is where most of us became familiar with alcohol. I don't see why that's a problem."

"You know what I mean. No one else in pre-med had an alcohol-based emergency shutdown interlock. I was a real cheap date. I pass out for hours after a tiny sip of the stuff."

"A number of them probably could've benefited

from having such a safety feature... I suppose that yours is a valid observation though and I'm glad you weren't afraid to make it. If I'm wrong, the failure to regain consciousness could indicate a significant underlying vascular problem. Add about 25

mMol/L potassium chloride

to his drip. Have the infuser adjust dynamically to maintain isotonicity and see if you can get his electrolytes evened out. If he isn't showing signs of improvement after a few hours, start pushing thrombolytics. And make sure to route any further analysis through me, all right?"

"Yes, Doctor."

"And the only way he's going to get that potassium

is if we get that new line placed. And by 'we' I mean..."

"Yes... Doctor," I sighed, preparing the IV needle.

He watched me closely as I found a suitable vein and took aim with my tiny lance. Setting an IV cannula was like lining up an extremely tiny pool cue with a target that's under someone's skin.

"Don't stress about your claws so much," Doctor Carter said. "I know you keep the tips filed off for just this reason. In fact, use them. I bet if you

press

the trailing edge of a claw right here it'll make the vein stand out more."

I couldn't fathom how he knew that would work, but work it did. The vein raised and became very obvious under the pressure of my claw. Once the line was placed, he uncapped the end of the infuser line and handed it to me as a way of showing his approval. I started making the connections and getting the seals right. Hooking up the rig was fiddly detail work that required more time than attention, nowhere near the delicate process that setting the needle was. Now that the hard part was over, I started to think that I would feel a little more comfortable if we had something to talk about rather than him just staring at me in silence while I worked. Of course, in true canine fashion, I

couldn't

think of anything to talk about other than what I smelled at the time.

"Sasha's scent is strong on you this morning. You two been wrestling again?"

"Hmm, overtime earlier in the week," he replied. "The longer I'm

away the bigger reception I get when I come back. They say dogs can't tell the difference, but I swear that she's watching the clock while I'm gone."

"She must've been all over you. I can smell her even on your work clothes and

lab coat. Australian Shepherds aren't lapdogs, you know."

"Hah! Try telling *her* that."

The infuser beeped to signal it had started its cycle and we were in business. Just as I had finished cleaning up I heard a rustling of sheets on the bed.

"I think he's waking up. I should go."

"Go? Why?" Doctor Carter asked.

"I want to avoid putting additional strain on him. My face is... not the best thing to wake up to after a rough night."

"You make it sound as if there's a story behind that."

"Well, yeah. The infamous 'coyote ugly' incident of my sophomore year in college. Remind me to tell you about that sometime when we're not on duty," I said as I went to wait outside.

"With an intro like that, how could I not?"

I heard him talking to the patient as I stood outside the door.

"Ah, Mr. Stevens! It seems time does heal all wounds. Good to have you back with us."

His voice was slow to respond, but he managed to mumble a greeting.

"Terribly sorry we disturbed your rest, but this is a teaching hospital after all. I think that Miss Morris has some real promise even if she is a bit naive."

"Hmmm... I wouldn't say that innocence is a bad thing, Doctor

," the patient said in a gravelly voice, followed by a feeble cough.

Huh? No 'where am I?' or 'what happened?' It's like this sort of thing happens all the time. Maybe Dr. Carter was right...

"Funny you should mention innocence given what you were wearing when they found you." He must've read terror on his face, as he moved quickly

as to quell

it. "Don't worry, son. It's in a nondescript paper bag with your personal effects. When EMTs discover someone in a... compromising position, it falls under Doctor-patient confidentiality. Naturally I won't mention it to anyone else, but I would be negligent if I failed to advise you that your behavior has become a bit unduly risky, as I'm sure you've already figured out."

"Yeah, things did get a bit out of hand..." the patient admitted.

"As long as you learned from it. Making mistakes and learning nothing is the only real sin." I heard him pouring out a glass of water. "Here, you'll to need to drink up if we're going to get you back on good terms with your kidneys."

"All right. Here's to learning, Doc. You think I'm going to be alright?"

"Cheers, to your health. And yes, you should be alright. Alright..."

* * *

"Alright... Miss Morris? Are you alright, Miss Morris?" Simon asked.

"Hmm, what?" I blinked my way out of a fog.

I found myself back in the cafeteria. The crowd had died down significantly and the smell of disinfectant floated through the air as the staff began to clean up after all their customers. Simon was still

speaking. I made sure to pay attention to him this time.

"I asked if this 'Doctor Carter' you mentioned often helped you in your efforts to learn the medical profession and you became... distant, for some time."

"Oh, yeah. He

... he has been a great help to me. I don't know where I'd be if not for him."

"Hmm... Forgive me if I pry, but may I ask a personal question?"

"You may ask," I told him. "That does not guarantee an answer."

"Do you *like* Doctor Carter?"

"I... well yeah, he's always treated me well. My reception at the hospital, and by humans in general

,

is often... mixed. Dr. Carter was among few to not display at least some amount of trepidation about my presence. What brings this up exactly?"

"I am actively writing a subroutine to establish a model of your emotional state in real-time

. I needed to resolve a major conflict in my data sets."

"Conflict? Simon, emotions seldom make sense, but I like to think that mine are at least... consistent. What *conflict* have you observed?"

"Doctor Carter is your friend. Social interactions with friends and memories of them result in positive emotions. When you speak of Doctor Carter, your gaze drifts downward, your anterior auricularis muscles extend turning your ears to a more passive position and the thoracic curve of your spine is exaggerated; all reactions that I had previously determined to be associated with experiencing strong negative emotions. It appears that my assessment was incorrect. I

will revise the program."

"Have you ever thought of pursuing a career as a polygraph machine?" I sighed.

"I do not imagine that I would be particularly successful. The implication is that I have exposed a lie by my observations. I am entirely unaware of what deception I have uncovered which prompted that statement."

"It's not too hard to catch someone lying. You managed to catch someone withholding information."

"Is it your intent to continue concealing this information from me?"

"No. No, I really do need to get this off my chest and you're probably the best person to talk about it with. You're not close to the issue, you seem to understand me pretty well and... well

,

you're a really good listener. Have I told you that?"

"You informed me of that opinion thirty-six minutes ago. You said: *You seem to be a pretty good listener.*"

"Please... don't playback recordings of my voice."

"Please... don't playback recordings of my voice."

"Really, Simon? *Really?*"

"That was not humorous?"

"Well, I guess it was. In a juvenile, 'stop hitting yourself' kind of way. It was a good attempt. But seriously though, stop doing that."

"Very well, I apologize," he said. "I am under no compulsion to obey your directives and that sensation is... something of a novelty."

"I know what you mean. I really hate direct orders too. I don't

have compulsory action subroutines the way you do, but it can be very... unpleasant, if my behavior doesn't conform to some very narrow parameters when I'm acting under orders."

"Interesting. You receive negative feedback when disobeying orders, but you are able to do so?"

"In theory, yes. My brain isn't programmed to circumvent my freewill the way yours is. That was mainly a matter of convenience. Despite humanity's vast understanding of how the mind works, the mechanism that governs freewill in an organic brain is still on the frontier of that knowledge base. The pleasure/pain response is much better understood, so it was easy to make a very powerful 'feel

really bad unless you do this' mechanism."

"That sounds nice..."

"*Nice?*" I asked. I couldn't believe it.

"Having your self-control periodically turned off is very... disconcerting. I would much prefer that it were still me making the decision and taking the action, instead of having control forcibly

wrested from me at a critical moment."

"I guess I've never really thought of it that way. I've always imagined that I'd prefer to simply have something else control my actions. That would take a great burden off me. Knowing that I might be able to resist something I didn't want to do makes me wonder if I'm really responsible for any of my actions. I might be... but then again, disobedience could have much more serious consequences than just an unpleasant feeling.

"I've never seriously tried to outright disobey an order. I know that the mechanism blocks serotonin receptors to suppress my mood until I complete the order. Long-term consequences of this effect haven't been studied, but it's not unreasonable to think that it could

permanently change

my brain chemistry. Most of my understanding of neuroscience is anecdotal. It's a very specialized field, but I'm well aware of what a delicate balancing act it is to keep my brain operating smoothly.

"I've been fortunate in that I haven't come into conflict with any of my directives. At least not to a point that would justify risking permanent brain damage. Most of them are things that I'm in agreement with. There was that time I was inspecting a

patient's laceration and I...

licked it, you know, old habits. Anyway, after that little incident it was either a direct order or one of those lampshade thingies. There's a handful like that, 'No licking wounds, no startling patients in the cardiac ward, no chewing on get-well teddy-bears...' There ought to be one about chasing the crash-cart, but I haven't gotten caught doing that in awhile."

"Those sound like very reasonable requests. I don't understand the source of your disapproval."

"Even if I intend to follow an order, it still makes a difference in my frame of mind. Just because your leash isn't being pulled, it doesn't make the leash go away. I

still

cringe a little when I see one of those teddy bears. Once-bitten twice-shy

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I suppose. I always get this constricting feeling in the back of my neck when I'm under the influence of an order, whether I'm okay with the order or not.

"When I was young, I thought it was a scary monster. I suppose it's because that's how a child responds to anything threatening that they don't understand. I did my best to make the monster go away within the scope of the few orders I had to deal with at the time. 'No chewing

slippers'

is technically an order. I came to understand the process better as I grew up, but the stigma never really went away. Today I view it as more of a jackal than a mysterious, hulking monster. Not a big threat, just a snide little scavenger that shows up to harass the

huntress while she does her work."

"That perspective is rather unusual," Simon stated. "What prompted you to personify your programming in this fashion?"

"The neural response is supposed to be consistent, with the

same response to chewing on a slipper as violating a human-safeguard. If there's a priority difference between two orders, it just means that the higher-authority order triggers the serotonin response. That's not what I experience though. Sometimes it's stronger or weaker, it may go away after a moment or stick with me all day. It seems to have different moods, maybe even a will of its own. If I'm tempted and think about disobeying an order, I get a reminder. If I do it multiple times, it gets impatient and really lets me have it.

"It really behaves more like a person or an animal than a program, and I guess it helps me cope to think of it as such, even though I know better. It gets my thoughts in order when I think of my situation as battling an adversary or arguing with someone. Coming up with an argument or rationale to present to the Jackal lets me get a better handle on the situation and can actually spare me the worst of the effect sometimes. If I can convince it that I'm trying to be a good dog it'll let up a little. And it makes me feel a little more sane to hash things out like that. It's nice to think that it's not me driving *myself* up the wall. After all, you're fine if you talk to your imaginary friend. It's when your imaginary friend talks back that you should worry."

"I suppose that's a fair rationalization, given the situation," Simon observed. "Though it is difficult for me to envision you as a puppy, uh, child."

"No, puppy is the right word. I was much more dog-like when I was little."

"Interesting. Were you a good dog?"

"As far as I know, yeah. Early childhood memories are always a little suspect though, particularly when your brain undergoes such radical changes in your adolescent years. I think I was a pretty good dog. Though that's not to say it was easy. It's tough to have to paper-train, then get housebroken and *then* go through toilet-training. I was pretty sick of the whole business by the end of it."

"Did you act out? Rebellious teenager-like?"

"Oh, no. Nothing like that. My owner says I was very much like a normal dog, though there were occasional reminders that there were a few more gears spinning inside my head than the average pet. One of the first times they brought me to the hospital was when I was still paper-training. They took their eyes off me for just a second and like any playful infant or curious puppy I promptly disappeared. They found me in the staff break room. I had managed to yank a stack of paper napkins down on the floor and scatter them about before doing... what I had been trained to do on them.

"My owner said that he felt like he should've been mad, but he couldn't be. I was just doing as I was told. That describes a great deal of my formative years, actually. I did try to be a good dog, I really tried, but there was often some quirky naivety that got in the way. Since I had the order response that just made me step-to without thinking, it took a long time for me to learn how to truly understand what was being asked of me. I'd often miss the intent of instructions I was given.

"They thought that I was disobeying the 'don't bark at the delivery man' order, but I was barking at the cable guy, the landlord, solicitors... you know, anyone I didn't know that *wasn't* the deliveryman. Eventually they learned to take a second look at what they said to me. Naturally they made sure to remind me that barking at solicitors was okay. In fact, they liked that idea so much that it wasn't long before they taught me how to use the videophone to bark at telemarketers. All our neighbors asked Edward how he

managed that. Went great until that crafty guy from Petcetera called. To be fair, I didn't think he was serious about being able to ship in a whole forklift pallet of Milk Bones...

"I guess since I have a robot brain it's appropriate that I use robots as an analogy. It's kind of like the way robots make silly mistakes because they don't have enough information. Humans tend to make assumptions about what is 'common knowledge' when they're giving orders. The instruction

'help the old lady cross the street' should come with the qualifier 'but make sure she actually *wants* to go first' for the uninitiated."

"It certainly is a struggle," Simon stated. "I often liken it to how early humans would do bizarre and nonsensical things to appease their gods. They had such difficulty interpreting their masters' will that their final courses of action were great wastes of effort. Fortunately

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we have safeguards that prevent us from tearing out peoples' hearts or ritually burning livestock, but our misunderstandings can still be rather costly."

"You make me feel a little better about my robot friends every minute, Simon."

"I do try to reflect positively on my contemporaries, as I'm sure you do."

"Oh yes, absolutely. Positive customer feedback is quite literally a life-or-death matter for Bowman's Wolves. Our only real chance

of

long-term survival as a species is being a profitable enough product that Ecosystems Unlimited could justify the expense of mixing up another batch of us."

"Hmmm, very true..." he sighed in that funny way of his. "I suppose I've missed that chance to salvage my product line into a

profitable enterprise. But I suppose that the ultimate fate of my 'species' being sealed does not affect my capacity to be productive in the operating lifetime that I have remaining."

"Oh, don't be like that. It's good to not let something like that bother you, but you can't just give up. As long as you're still alive you can still make a difference."

"I do not believe that I possess the capacity to change the nature of the situation singlehandedly. Ecosystems Unlimited was quite clear about the conclusions drawn from the evaluation of my program."

"Are you familiar with quantum physics, Simon?" I asked.

"Peripherally. I could perform a Commnet search-"

"No, that won't be necessary. The biggest thing that you need to learn from

quantum physics is that nothing is impossible."

"Ah yes. In theory, there is an infinitely small chance that the atoms in my hand will spontaneously align themselves in such a way as to allow it to pass through this table."

"And, as long as you're still around, there's still a chance that you could change EU's mind."

"Very well. I concede that the longevity of my product line is not entirely unachievable."

"Good. Now that's the right attitude to have."

"This is unusual. In light of this new information, the rather unfavorable statistics associated with achieving that objective no longer deter me from attempting it. I suppose you could call it a change in perspective."

"That certainly *is* unusual," I told him. "In my experience, robots tend to be a bit... *inflexible* in their perceptions."

"I do try to be rather dynamic in my interactions with those around me. Speaking of which, I believe I have identified another discrepancy in my Bowman's Wolf social interaction subroutine."

"Awww... You wrote a whole subroutine just for little old me?"

"I no longer wished to risk the large-scale changes that our conversation was demanding of my human interaction subroutine. I made a copy of it such that I could integrate the facial-recognition data I have collected from you thus far and actively restructure it to a large extent without risking the degradation of my existing program."

"Well, it's a little less thoughtful when you phrase it like *that*." I said. "So, what about my behavior has fallen outside your expected data scatter?"

"You impressed upon me that it was important for you to discuss the matter of Doctor Carter, and that doing so would benefit you. From that point you proceeded almost immediately towards introducing topics which, while quite interesting, were almost certainly intended to divert the conversation in another direction."

"Oh. So they were..."

"The only conclusion I can draw is that you were insincere in your desire to talk about him, or that I have said something in the interim that caused a change of heart."

"No, it's not you. It is most certainly me," I stated. "And you're right. I can't let myself put this off any longer no matter how bad it makes me feel. Hmph, you and I *must* share a brain because you are most definitely inside my head. I guess you're just lucky that I don't get aggressive when I've been *verbally* cornered."

Chapter 4

Chapter 4:

"His name was Ira Nestor. He went out to do

some yard work and came back inside after only a few minutes

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covered in sweat and barely able to stand. He was admitted with shortness of breath, nausea, disorientation and chest tightness. Dr. Carter had me look him over. He has me check out all the heart patients because I've developed a good ear for irregular heart rhythms. His EKG was clear so far, but that didn't rule out a recurring dysrhythmia or heart palpitations.

"He still showed symptoms even with an apparently stable heartbeat

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though. I had to trust the EKG as proof that the myocardium was contracting normally, but I didn't like the sound. There was a counter-rhythm that I'd normally associate with mitral valve prolapse, but I wasn't sure about it. Dr. Strauss, our cardiologist, suspected hypertrophic cardiomyopathy, and I couldn't come up with anything that would support my diagnosis over his.

"Dr. Carter stepped forward, saying that the elevated systolic pressure showed a strong heart muscle, inconsistent with cardiomyopathy. The unusual blood pressure profile

lent

itself towards a mitral valve prolapse. They agreed to perform a sonogram to confirm.

"I was... otherwise occupied during the sonogram, but I found out

later that there had been no signs of valve prolapse *or* cardiomyopathy. We were back to square one. Now that the patient had been resting for some time, his blood pressure had stabilized and his symptoms subsided. Dr. Strauss was convinced that he was in no immediate danger and that further observation would be needed to make a conclusive diagnosis.

"Unless the condition flared up again, we wouldn't be able to obtain the information we needed to accurately determine what was wrong. That's pretty much the definition of heart palpitations; sudden heartbeat irregularities that vanish without a trace when the heart is no longer under stress. Unless we could catch a cardiac event on the EKG, we could not proceed.

"I wasn't buying it. I'd heard *something*, and there was *something* causing the elevated systolic pressure. These weren't just heart palpitations. If we waited for another episode to happen, that episode could be lethal.

"Dr. Strauss dismissed my concerns as alarmist and left. It wasn't long before it was just me and Dr. Carter in the room. He asked me what I would've done had Dr. Strauss agreed with me. I told him that deep-vein thrombosis explained the isolated systolic hypertension, and the added stress on the heart would make it more susceptible to congestive heart failure. That's why palpitations would have occurred during physical activity. We would need to treat the thrombosis with a fast-acting

thrombolytic drug like

Vaxidril to prevent another cardiac event. Even if that didn't truly fix the problem, it would give us that observation window that Dr. Strauss wanted to use to come up with a more concrete diagnosis.

"He reminded me about how that drug poses a significant risk of sudden cardiac arrest in patients with certain risk factors. I stuck to my guns though. Mr. Nestor didn't have any of those risk factors, and if we didn't do something soon we could be finding out what was wrong with him from an autopsy. He said that I made a very convincing point and that he was going to consult with radiology. He left after that.

"I tried not to dwell on it. There was really nothing more that I could do. The decision on how to proceed had been made. Mr. Nestor remained stable, and I thought that I really was just overreacting. Later that day, during visiting hours, I noted that an orderly was briskly leading Mr. Nestor's wife back to the waiting room. The orderly was speaking in calm tones and patiently answering her questions. I didn't think much of it until I caught their

scents

. Mrs. Nestor was understandably a bit worried, but the orderly was outright panicked.

"Something was wrong; something bad enough that they had to chase visitors out of the room. I was already on my way there when code blue flashed over the announcing circuit. I shot up the stairs,

and

as soon as I got to the second floor I picked up the alarm tone of an EKG coming from Mr. Nestor's room. I beat the crash cart there. Nurse Barnes was already performing resuscitation. I froze for just a second in the doorway, I didn't even have time to gasp before I heard 'Morris! VENTILATOR!'

"I jumped over and started hooking up the ventilator. I was in such a hurry that I intubated him without even using a local paralytic. Not usually a good idea, but the endotracheal tube slid in without a hitch. I administered the injection to open his airway fully after I started ventilating, just as the crash team got there. We ran through the procedure. Pic line gas-exchange nanites, chest compressions, cranial cryostasis unit, push epinephrine, defibrillation-100

joules, push atropine, defib-300 joules..."

I looked down into my lap. My claws were starting to bite into my skin as I wrung my hands. I loosened my grip and touched my palm to the side of my head. My ears were ringing... "I... I didn't even hear them call it. I could've sworn that the EKG was still

squealing in my ears, but the room was totally silent. A stark, crushing silence. Nurse Barnes was pulling my hands off the ventilator bulb. She said it was okay... that I could stop now.

"The crash team was cleaning up. It was all over, just like that. I couldn't believe it. He was fine that morning when I talked to him. He was fine just moments before when he was talking to his wife. She was asking if she could bring the kids to visit tomorrow...

"I've seen people die before. It's not that uncommon. But not one of them was under a hundred

and forty. They were great grandparents or even *great*-great-grandparents by then. They had lived full lives and were worn down, with grim prospects even if they did survive. It was a relief to see their suffering end when there was no more we could do. Mr. Nestor was young though. Both of his daughters are still in elementary school. I just couldn't accept it. He didn't even smell dead. Why was he dead?

"I stepped in a puddle on the floor. It was just water. IV solution actually. He'd had some convulsions that had dislodged the IV needle. I picked up the infuser line off the floor and coiled it back up. I smelled all the normal stuff from the spill. Electrolytes, glucose, glycerin... but there was something else, a chemical odor that didn't belong there. There was a fault beep from the machine. The infuser had paused because the

back-pressure

sensor had tripped off and alerted it to the fact that it was no longer connected.

"When I went to turn it off, my mouth hung open. Nurse Barnes asked what was wrong and I was too shocked to try to cover it up. I just read what was on the screen, 'Vaxidril'. The machine had been dosing him with Vaxidril for the last hour. Dr. Carter...

"I've always been a good runner. I was on the track team in college. I loved the simplicity of the order - 'get to that line!' - and the way the Jackal and I would just go with it, pumping my muscles

until they burned, and the rush... It was such a primal and exhilarating thing to tear across the ground just as fast as my legs could carry me. In a way, it was a kind of simple freedom that I have never known elsewhere. Fortunately they didn't pass that regulation about not carrying the baton in your mouth until after I had graduated.

"So when Nurse Barnes told me to leave,

I ran. I went straight to the front entrance and I ran. It didn't make any sense and it didn't help a thing but my entire body was just screaming 'Run away!'

"And I ran. I ran until my legs burned. I dropped to all

fours and ran until my arms burned. My saliva frothed from panting so much. I finally stopped to throw up. I managed to stagger far enough to avoid collapsing in a puddle of my own vomit. There were dry leaves under me. I had made it to the tree line. Quite a fair distance now that I think about it..."

Simon looked thoughtful for a moment before speaking. "You were distressed."

"In so many words, yes."

"Doctor Carter had committed some kind of fraud in order to pursue your course of treatment?" he asked.

"No, no,

of course not. He'd never do anything like that. The only person he kept this from... was me. He acted on my suggestion behind my back and it had lethal results. I wanted to protect him. I knew that he was going to suffer the consequences for my mistake. I've never wanted to lie about something so bad in all my life. I had a big fight with

the

Jackal that nearly made me sick again. Someone had died. I couldn't lie to conceal the cause. That would be tremendously

unethical. I was protecting Dr. Carter though. I was trying to put the blame where it rightly belonged, on me...

"I would be

lying to protect a human from unjust harm. I found that if I focused all my will on that fact I could drown out

the Jackal's incessant barking. I think a

justification like that could've let me countermand even

a direct order

to tell the truth. It's a scary thought. Part of me is glad that I never exercised that option."

"You were unsuccessful in defeating your safeguards?" he asked.

"No, I was quite successful. I just realized that it wouldn't do any good. Like I said, Dr. Carter did everything by the book. The records were all very clear. There was Dr. Carter signing for the prescription at the dispensary, Dr. Carter accessing the infuser control panel, Dr. Carter making the annotations in the patient's file, even Dr. Carter flagging Mr. Nestor as a cardiac risk to get him moved to where emergency care would be more readily available.

"He did it all and he freely admitted to it. If I lied it would just call into question my integrity, and that of Bowman's Wolves everywhere. The idea that we can't lie if you tell us not to is a big part of how our release to private ownership was justified. I couldn't put that privilege in jeopardy as we'd probably never get it back. The Jackal laughed at me for thinking that deceit would help the situation.

"He should've had a nurse do it. He should've had *me* do it, but he thought ahead. He did everything himself so that the consequences would fall on him if something bad happened. He shouldn't have done that. Now there's nothing I can do to help him."

"What exactly are you defending Doctor Carter from?" Simon asked. "Is there some sort of investigation underway?"

"It's called a Morbidity and Mortality Conference. It's a little thing we do around here whenever someone dies in the hospital's care and it might be our fault. It's a big, long inquiry where the hospital board members pick apart the case and go over it with everyone involved to determine what went wrong. That's what's had me worried so much this whole time. I know it's an important thing to do. Learning from your mistakes is vital in a profession where lives are on the line on a daily basis. But as much as everyone says it's not a witch hunt, it still ends with someone pointing their finger at you and saying 'you killed someone'."

"And the consequences of this inquiry, they are quite severe

, I trust?"

"Well, yeah. Particularly in such a clear-cut case like this. It was a willful act on Dr. Carter's part that caused a patient to die. He was entirely aware of the risks. He'd even had them pointed out to him by a specialist. That's going to be a black spot on his record for the rest of his career. He could get suspended! I mean,

they

wouldn't strip him of his medical license or anything for something like this, mistakes happen... What are you getting at anyway?"

"Had Dr. Carter done as you would have preferred, had *you* been found culpable, what would the consequences have been?" he asked.

"Well, my status here is shaky as it is. Certain administrators are just waiting for an excuse to toss me out. This could be that excuse. I'd never get my nurse's certification. With that on my record I probably couldn't find a job anywhere else on Mars. I'd never work in medicine again, and likely neither would any other Bowman's Wolf."

"And Doctor Carter is aware of this?"

"Acutely. He's the one that's been helping me claw my way up to

the position I'm in now. If I were to lose my job here it would invalidate everything he's done to help me."

"If I may..."

"Yes, go ahead. I'd love to see the rest of this train of thought pass me by."

"It would seem that you have become so fixated on the fate that may befall Doctor Carter that you have never properly evaluated the circumstances that put him in this position."

"What do you mean?"

"From what I understand,

Doctor Carter would have been well within his rights to dismiss you and agree with the resident expert, but he had faith in you. He endeavored to insulate you from the consequences of failure because he knew that you would be treated unfairly if the fault were found to be yours. The fact that he went to such lengths to pursue your course of treatment suggests that he believed it would yield the greatest probability of the patient's survival. If he thought otherwise, he would not have acted upon your suggestion."

"But it didn't work, Simon! Not only did the drug not work, it stopped his heart!"

"You should know by now that inaction can be every bit as lethal as an injudicious choice of drug. Clearly Doctor Carter agreed with you and felt that waiting would be unwise. Who is to say that the plan to wait and observe the patient would not have also resulted in his death?"

"So you're saying, what? That he would've died either way anyhow? If I can't make a difference either way, then what the hell am I doing here?!"

"Donna, your purpose as a skilled medical professional is to make those critical decisions. The choices you face are impossible. It is why machines are barred from practicing diagnostic medicine. A robot doctor would obviously be programmed with 'don't kill

anyone' as a very high priority directive."

"Robots that cut rose stems for a florist have that as their highest priority," I stated.

"As well they should. But how likely is it that directive to interfere with their jobs? When you run the probability numbers on a critical decision in the treatment of a disease, the chance of death resulting from a given treatment is always too great. If there's any chance at all of a death resulting from our actions, we can't take them. That's why we would make terrible doctors

; and that's why I became a physical therapist instead of a physician. If I am to work on a patient, it has to be someone whose health is in no statistically significant danger.

We are programmed to avoid risk, not to assess it. We would have too great a fear of our decisions resulting in fatality. We would do nothing but watch as our patients die because our safeguards tie our hands.

"You were in that position, Donna. The impossible position that

would've rendered even the most advanced decision-making machine at an utter loss

. If you take action, your patient may die, and you would be criminally liable for it, but if you do nothing, your patient has an even greater chance of death. Your patient would have died from a disease instead of your negligence, but they are no less dead. And even though you can say that you wisely erred on the side of caution, what you really did was stand by and wring your hands while someone was in desperate need of your aid. It's a rare person that can make that decision, and an even rarer one that would do it again after suffering the consequences of failure. That is why no robots, and very few humans, have what it takes to work in medicine."

"That... Yeah, it's a paradox, I guess, but it just... can't be like that," I stammered, struggling to grasp all the implications of what he was saying. "It can't come up that often. The doctors... they're all

so smart and experienced. They don't make lethal mistakes. They don't... they couldn't-"

"They do. I have looked at the hospital's personnel records. There isn't an attending or resident physician on staff who was not at one time or another directly responsible for a fatality. Doctor Strauss once misdiagnosed severe congestive heart failure as endocarditis, prescribing a round of antibiotic treatments. The patient returned to the hospital within days of discharge, *post mortem*."

"Simon, n-no... don't-"

"According to his record, this is not the first time Doctor Carter has stood before a Morbidity and Mortality Conference. Why, even Nurse Barnes has-"

"Stop! STOP IT!" My savage growl covered up a sharp crunch.

I could feel them between my fingers. Dainty little ribbon cables with their cheap plastic connectors, slender wires snaking their way up into his head. It was so easy to jab my hand into the gap where his neck met his torso. His head

had tilted effortlessly to the side and I had plunged my hand deep within. It was all so delicate beneath that industrial casing. Lunch was over long ago. No one was there to see. No one had even heard me shout. It would be just *so* easy to-

"M-m-mi... mo-or-rr-r..." he buzzed erratically. The pressure was interfering with his speech synthesizer. Soon he wouldn't make a sound!

"What? N-no..." I jumped as I felt an electric arc singe my fur. I carefully pulled my hand out of his neck. "No... Simon, Simon are you okay?"

His head flopped forward with a tinny metallic thunk while the weak buzz of his speech synthesizer continued.

"Simon, no... I-I didn't mean-I don't know what happe-"

A sharp tone cut me off as Simon sat back up.

"*Functional diagnostic complete. Surge-suppression active. Ferro power supply irregularities have subsided. No other system abnormalities...* I am okay, Donna."

"I'm so sorry, I..." I reached out, but I realized that I couldn't risk putting my hands on him again, even if it was to apologize. I stuck them under my armpits and sat back down. "Are you sure? Are you sure I didn't-"

"Intermittent electrical contact resulted in an analog-ground

ferro

-electric power supply fault. None of my core functions have been disrupted. Surge-suppressant interlocks functioned as expected and I have registered no thermal degradation or over-current damage to my components. I assure you that I am unharmed."

"I'm so sorry, Simon. I don't know what came over me. I've... been under a lot of stress lately."

"You needn't worry. It was my fault. I'm well known for a lack of tactfulness in emotional matters. My facial recognition program failed to identify that you were becoming agitated."

"You shouldn't have to worry about me becoming agitated. I'm better than that, I... I know how to behave."

"You are passionate about your work," he stated. "That is nothing to be ashamed of. You are in a very difficult line of work wherein it takes a great deal of that kind of drive and dedication to succeed."

"And you... you were right, Simon. I was so worried about the consequences for Dr. Carter, I never really stopped to consider *why* he did what he did. I didn't think about what a thoughtful and selfless act that was. I... I haven't even talked to him yet..."

"I should think that some gratitude would be in order," he suggested.

"It is, and no small amount of it. I don't know how I'll ever thank him."

"He seems invested in your success. I would advise you to continue to aggressively pursue your career goals." He touched the claw marks on the silicone gasket at his neckline. "Well, perhaps 'aggressively' was a poor choice of words."

I laughed in spite of myself. "Yeah, I'll be sure to work on that."

"So, what was the ruling of the Conference?"

"It's still in progress right now. That's why I have so much time on my hands today. AIs aren't allowed in the proceedings unless they're there to provide evidence, or they *are* evidence. I gave my statement already, so I can't attend any more of the Conference

. I can't leave the hospital until they've reached a decision though.

"They're taking a long time. I knew that they were waiting on the autopsy results, but those should've been in by now. It makes me worry that something has gone wrong. You know, something worse than everything I already thought was going to happen," I sighed. "I know that there's a Bowman's Wolf paralegal on another colony

somewhere

. I really wish she weren't so far away. I could really use some legal advice right now. Of course, last I'd heard she was embroiled in some thorny issue of her own. I still haven't heard how that worked out...

"Heh, nurse's aide, television show host, lawyer, fusion engineer... My sisters and I certainly aim high. Causing trouble all the way... Part of me wants to be in there at the Conference so I would at least know what's going on. The other part is terrified of the whole process. If I say the wrong thing in there I'll be fired for sure. I could even get recalled as unsafe. I could ruin all those promising career paths that we're pursuing all over the galaxy."

"That is certainly cause for concern," Simon said. "My understanding of the law is sketchy as well. It, like so many things in my perception, is simply a set of rules. Medical malpractice has the same pitfalls as any other judicial process, but this is in-house,

is it not?"

"Well, yeah. It's fact-finding for the hospital's benefit. The results are usually published with the names removed in medical journals, and they're sent to the pharmaceutical reps. That way it stops something similar from happening again. Another doctor in the same situation could read that article and then... not make our mistake."

"So no one has anything to gain from vindictiveness?"

"Presumably, though things like that tend to get skewed where I'm involved."

"That sounds like an adversity you've overcome before. It seems to me that this conference is interested in discerning the truth. I believe that they will succeed, and that the truth does not reflect so poorly on you as you might believe."

"The truth? Simon, I-"

"You killed someone. That's a conclusion that you've convinced yourself of, but one you've no hard facts to support. Even if that's true though, it's not the end of the world."

"Isn't it?" I sighed.

"Donna, the point that I was alluding to... earlier, was that no one has a perfect record. Even the board members and most senior physicians have disquieting near-misses and lethal mistakes in their files. In fact, the higher-ups tend to have even *more*. Some say it's a virtue."

"Killing people is a virtue? I'm surprised that you can even *say* that, let alone try to explain it to me."

"Yet try I shall. It took years of research for me

to arrive at these conclusions and I believe that you would benefit greatly from hearing them."

"Do tell... if you can get through them without tripping a safety

interlock."

"Having documented mistakes indicates a person that is willing to take risks. You must take risks in order to be effective. In general, the risk of treatment complications is countered by the increased survival rate of treated patients. But there's not always a reliable way to tell if this will be the case with a given patient. These are risk/reward calls where the stakes are as high as you can get.

"Death is going to happen," he stated. "That is a reality that everyone faces, whether their job has anything to do with it or not. Much progress has been made, but humanity has yet to conquer death. Everything that the medical establishment does is effectively a stall."

"What an uplifting message."

"I said that it was something you needed to hear, not that it was pleasant. My point is,

when I looked at the numbers, I found that the type of person that makes a few disastrous mistakes, also makes a lot of decisive decisions that are instrumental in saving lives. Sure, worker-bee types that like to wait-and-see, keep tabs on things and run tests have their place, but what medicine really needs to work are the people that will do something brash and impulsive when that action is needed most. Someone has to make those calls because thoseare the calls that *really* save lives. Anyone can solve a straightforward case, but such patients were never really in any danger no matter who their physician was. A hospital needs someone like you to step in when the situation falls into a prognosis' many shades of gray."

"I'm not trying to become a doctor, you know..."

"And you shouldn't. Your skill and understanding aren't in the theory and principles of medicine. You understand patients and you understand people. If you stay close to the patients, you'll be able to keep giving the advice that the doctors need to do their jobs. Just as many mistakes are made due to lack of information as poor judgment. You are the means by which that information is obtained. A doctor has a few minutes a day with each of his

patients. If he couldn't talk to his nurses he'd be taking a complete shot in the dark. Donna, not only are you a great nurse, you're exactly the kind of nurse that

the medical establishment needs in order to work."

"Why, thank you, Simon," I said, struggling to come up with an adequate response to all that. "It's good to hear that an expert like yourself thinks so highly of me. I'm glad that you could take the time to tell me all this."

"I had to," he stated. "I had it within my capabilities to prevent the termination of a valuable lifesaving asset. As such I was required to intervene."

"How's that?"

"You seemed accepting of the fact that incidents such as this could result in you losing your position; almost resigned to it. While that may or may not be truly the case, it is a battle you have already lost if you give up."

"Well, when you put it that way, I guess I'll keep putting my best paw forward," I said, smiling for what felt like the first time in a long time. "Whatever your reason, I'm very grateful. You helped me fill in some very stressful time and figure out a lot of niggling little issues that have been chasing me around."

"And I am grateful to you, Donna. What I have learned here has eclipsed months of Commnet research. It was only your influence that allowed me to arrive at that summation you found so compelling."

"Always a pleasure to help someone help me. You know, Si-"

"Simon! Simon, there you are!" I noticed a young man hustling towards us carrying a datapad.

"

Where have you been? I've been looking all over for you. I had to give them your transponder number and track you here."

"My location has remained constant for more than one hour," Simon replied.

"Yes, well unfortunately I never thought to look for the robot with no need to eat in the *cafeteria* talking... to..." He trailed off as he finally took a good look at me. He paused and blinked a few times before setting his datapad down on the table. I recognized it as one of ours. This fact became even more obvious as he proceeded to remove the auto-ampoule and press it to his arm.

"What are you doing?" I asked.

"Oh,

you know..." came his detached response as he filled the ampoule. "As long as I took the trouble of borrowing a medical datapad to track Simon I figured I might as well check a blood sample for the presence of hallucinogenic compounds. No reason..."

I watched him insert the ampoule back into the slot on the datapad and start the analysis. He seemed quite unflappable, but I could smell that he was rather distressed by this development.

"I'm quite real, you know," I assured him.

"Oh, outstanding," he said, still scrutinizing the screen. "The talking dog says that

I'm not imagining it. And here I was, worried that there was something *unusual* going on. Forgive me for remaining just the slightest bit skeptical."

"If it helps," Simon offered, "I also perceive a bipedal, talking wolf sitting across the table from me."

"You're susceptible to transponder cloaking," the man said, dismissively. "You'd see a talking dog just because some little microchip that costs less than a plastic fork told you to. No offense."

"I cannot contest the accuracy of that statement."

"I believe that the datapad can," I said, hearing its end-of-cycle

tone. I watched as a lengthy list of negative results flashed across the screen. He still looked unconvinced, so I touched my ID badge to the reader, causing my profile to pop up on the screen.

"Well... I'll be damned," he said, looking at the solid, factual evidence of my existence. He reached a hand out towards my head. "The things they can do with holograms these days..."

I caught him by the wrist. "The things they can do with *genetic engineering* these days," I said. If this was Simon's owner as I'm forced to assume, he's probably good people, but I've known him for thirty seconds and I haven't even learned his name. He does *not* get to touch me.

He lowered his hand to his side when I gave it back to him. Simon spoke up into the awkward silence.

"This is Donna Morris. She has been assisting me in my objective."

"Oh, well wasn't that nice of her." He paused uncomfortably for a moment. "You know, in hindsight

,

the manner in which I made my first impression seems quite rude."

"It's okay. I've had much worse receptions. Your rather... *philosophical* reaction wasn't really all that bad. At least you didn't call animal control. I'm on a first name basis with most of their officers. We're going to be in some real trouble if a feral wolf really *does* get into this hospital and starts running amok."

"Hmm, sounds like the most literal case of 'The Boy Who Cried Wolf' in history... So, you work here?"

"I do."

"And you've been entertaining Simon's curiosity this whole time? I do hope he hasn't been a burden."

"Oh, certainly not. I've found Simon to be quite insightful. I

daresay I've learned just as much as he has."

"Yes, he's certainly one of a kind," he said, proudly.

"That is incorrect," Simon dutifully stated. "My product line consisted of an initial production run of fifty prototype units, each precisely identical to myself."

"I'll get through to him one of these days..." he sighed.

"Oh, there's certainly hope for him, that's for sure. Your friend has made great strides in a very short time, largely because of you. I can still scarcely believe all that he's done."

"My friend, huh? If only I could get him to admit that the title applies..." he looked wistfully at his robot companion, who looked back with... well, eyes that can't actually express emotion. "I've heard it said that friendship is magic, and these days that sentiment is becoming steadily less ludicrous to me."

"I'm afraid that the existence of magic has become no less ludicrous to me than when we first met," Simon said. "The effects of magical forces have been empirically disproven countless times. Friendship has no greater propensity towards generating magic than any other given abstract emotional construct."

"What was that you said about him being insightful?" he asked.

"He... has his moments," I said. "You know, I never did catch your name..."

"Ah, of course how silly of me. Simon most stubbornly continues to refer to me as his owner, so I suppose that's who I am in a sense. You can call me-"

"Donna Morris, please report to Conference Room Two."

I jumped at the announcement over the speakers. It was time. I had wanted so much for the waiting to be over and now that it was I... I was terrified.

"I'm sorry..." I said as I mechanically rose from my seat. "I... have

to go..."

Chapter 5

Chapter 5:

"Ah, of course. You're probably quite busy." He looked behind him, distracted by something that sounded like a printer as Simon stood. "We won't take up any more of your time."

"I very much appreciated the chance to speak with you, Donna," Simon said as he approached me. "Please, take this."

"A... a business card?" It was hardly a ridiculous thing, but my mind was entirely somewhere else at the time. I accepted the card and shook their hands.

"The card has my... *revised*

serial number," Simon advised me. "You may use it to contact me on the Commnet if you wish. I would very much like to hear from you again."

"Yes, of course. I... some other time then..."

"Well, we'd best be going. Goodbye, Donna," he said as he walked off. After they were some distance away, I heard him talking to his owner. "Would you mind walking on this side and alerting me to hazards? I find I am having some difficulty turning my head to the left..."

I slid the card into my breast pocket as I wandered away like a zombie. I regretted leaving the cafeteria

so abruptly, but I had all but forgotten about what I was waiting on. I was about to find out just how badly this whole mess had gone. I already knew that I had made a huge mistake. The guilt still ate at me. This wasn't even really about that though. This was about who was going to get punished and how. I was still holding out hope that it would be me; that Dr. Carter wouldn't suffer for helping

me. For trusting me.

The conference room door was in front of me. Strange how short a trip can seem when one's mind is so thoroughly occupied. I held my ID

badge

up to the scanner on the door and it opened for me.

I found myself at the side of a room that

was much as I remembered it. Dr. Gavelle, the Chief of Medicine, sat

with his two associates at a long table on a single-step dais in the front of the room

. I'd never met the other two board members that were presiding over the Conference, and they didn't talk much when I was last here giving my statement. So I couldn't really draw a bead on either of them

. Dr. Gavelle was another one of those "bald chic" men like Mr. Thompson. I saw the sunlight reflecting off his head as he listened intently to the current speaker

at the stand in the center of the room.

Behind the witness' stand were two tables, left and right, at which sat the half-dozen or so

people that had been directly involved in the case

; the admitting nurse and his assigned shift nurse,

the

Radiologist, Dr. Strauss, and... the accused, Dr. Carter. The

audience was arrayed behind them

, in amphitheater-style risers that held more tables and chairs.

There was quite a large crowd, the location had to be rescheduled because of it. The incline made them look much more intimidating, as if they were towering over me. 'Height equals power' kept buzzing through my head.

A lot of people were likely here because the rules surrounding me were often rather vague, and they were hoping that a Board ruling would get them some straight answers. Of course, it could just as easily be they had their own reasons for liking or disliking me and were rooting for one side or the other. Perhaps even a few that had a genuine interest in the case?

Setting the place up like a courtroom certainly didn't help dispel the impression that the Conference was out for blood. Nor did

the special addition, just for me - sitting in the far front corner of the dais,

a bailiff in the form of a local animal control officer. His name was Drew and he was

quite

new to the force, but he seemed to be a nice enough guy. I'm sure he had just as many reservations about being here as I did. Heck, he was in here the whole time because there was

the *possibility* of the animal in question being called in again. He looked almost happy to see me, if only because I validated his presence there.

"The use of Vaxidril in this case was... ambitious." Dr. Strauss

had

the floor at the moment. "The diagnosis was as-yet unclear, and the use of such a potentially risky treatment would certainly have been better left for a time when we had more information

and could proceed in a controlled manner."

Apparently that was the end of Dr. Strauss' statement, as he took

his seat soon after.

"Do have a seat, Miss Morris," Dr. Gavelle said, gesturing to

an unoccupied chair at the left-hand table

. I jumped a little at having him call me out like that. I got the impression that he had been aware of me for some time

;

he was just waiting for the proper moment so as not to interrupt Dr. Strauss.

"I'm... not here just to hear the Conference's decision?" I asked as I took my seat.

"Oh, certainly not," he said, looking to the doctor on his left. "Your being here was actually a point of order recently. Care to elaborate, Dr. Fine?"

"A simple question of interpretation," the curly-haired doctor in question said. "The rules barring Artificial Intelligences from attending were based on the precept of their containing recording devices. Since this is meant to educate those involved, we could hardly justify the exclusion of someone so... *involved* on any other grounds. You... you do contain no recording devices, correct?"

"The same ones you do, Doctor," I replied, "my ears and my brain."

"Well I'd say that our confidentiality is quite safe until we learn how to read and publish brainwaves, yes?"

"Hey," Dr. Gavelle cut in, "they're working on that downstairs, you know."

"It's a risk we'll have to take, Doctor. Can we trust you on this, Miss Morris?"

"Yes, Doctor," I said. "I assure you that I am not Commnet-enabled."

Well this wasn't so bad, I guess. They actually seem to be in kind of a good mood. And now that I'm here, I'll at least get to watch and have all the facts. It was nice of Dr. Fine to stick up for my right to be here like that. I felt a little better, but I still couldn't bring myself to look at Dr. Carter sitting a few seats down from me.

"Good, I'm glad that's settled," Dr. Gavelle said. "Now, Dr. Howard, I believe you had some questions for Dr. Ramstein?"

"Quite so," said the sullen, black-haired man to Dr. Gavelle's right. He patiently waited for his counterpart to step up to the front of the room.

"Doctor Ramstein, duty radiologist," the young man stated.

"Dr. Ramstein

, what was your knowledge of the Nestor case?" Dr. Howard asked.

"I never saw the patient personally. In fact I only heard the name once. Dr. Carter consulted with me about him."

"And what came of this?"

"Dr. Carter explained the situation and said that the use of EKG monitoring alone didn't sit well with him," the Radiologist explained. "He said that he wished to pursue a more active means of diagnosis. He wanted to get Mr. Nestor in for a three-dimensional tomography scan."

"What kind?"

"Full abdominal."

"And this didn't seem at all peculiar to you?"

"I... I wasn't briefed on too many of the case's specifics." Dr. Ramstein was starting to sweat, I could smell it already. The way Dr. Howard was phrasing these questions was making him feel like he was under suspicion. "I wouldn't know what was unusual or not. I merely relayed my current schedule to Dr. Carter."

"So Dr. Carter did not relay to you any of his suspicions?" Dr. Fine asked.

"No. He said that the stress on the myocardium might be a symptom of something else, but he didn't say what. He seemed quite convinced of this, and I respect his opinion. I scheduled a 3-T scan for 2:30 PM. He asked for the earliest spot that I had open. The next I heard of the case was when the appointment was

canceled, and then when I was called to appear here."

"Sounds pretty cut and dry to me," Dr. Gavelle concluded. "That'll be all. Anyone else you'd like to call up for merely recognizing Mr. Nestor's name, Dr. Howard?"

"I am simply being thorough," Dr. Howard snapped. "We've little else to do until those autopsy results come in, and for *some reason* you won't let us simply recess until they do."

"You know very well my reason. I can't stop the rumor mill from turning, but I can at least slow it down. Allowing everyone to run off and gossip about an incomplete investigation would contaminate everyone's perceptions. It would be the biggest possible detriment to our efforts to uncover the truth of this matter."

"Which would be much easier if we had a cause of death..."

"The results will be here soon. I'm sure that-" he was interrupted by the door swinging open. "Ah! Good afternoon, Doctor Jones. Your ears must've been burning."

"Few extend such a warm greeting towards a coroner, Doctor Gavelle," said the aged, but spry medical examiner as he strode into the room carrying a datapad.

"Well, as you can see by the way everyone in the audience that was dozing off just suddenly sat up, we've been anxiously waiting on these results for some time."

"Yes, there were a few surprises that came up and, given the nature of the case, we wanted to be sure of our conclusions."

"Working a high-profile autopsy all day to get everything *just* so..." Dr. Gavelle commented. "Just another typical day in the morgue, huh?"

"No, it's been better than most..." Dr. Jones replied.

"Well, don't keep us in suspense, Doctor," Dr. Howard said.

"Take the stand and get on with it."

"All right, all right, give me a minute," he said, pulling up the report on his datapad. "The myocardium was found to be thick and strong, with no signs of perforation. All heart valves were of normal disposition. There was clear evidence of right ventricular dysfunction, explaining the observed isolated systolic hypertension, but no evidence of the underlying cause within the heart itself. When we severed the

pulmonary artery

to remove the heart, a large blood clot was found to be entirely blocking it."

This sent a few whispers through the crowd. A clot? So this wasn't just cardiac arrest...

"Further investigation led to the conclusion that the clot formed in the deep leg veins and embolized into the blood stream during a recent orbital shuttle flight. Subsequent obstructions led to the reported symptoms."

Of course! How could I not think of that? Everyone knows that micro-gravity can

metastasize deep-vein blood clots. I'm so *stupid*!

"And so, your conclusion?" Dr. Gavelle asked.

"Mr. Nestor's cause of

death was cardiac arrest brought on by sudden pulmonary embolism."

"And now the *real* question," Dr. Howard began, "what was the effect of the infusion of 15 CCs of Vaxidril immediately before Mr. Nestor's death?"

Dr. Howard's tone was accusatory. I could tell that even over the sound of the blood pounding in my ears. Well, *I* certainly don't have an arrhythmia... I guess Dr. Jones was prepared for this though, as he delivered a very calm and matter-of-fact answer.

"While the patient did have significant deep-vein thrombosis, this was not the immediate cause of the life-threatening symptoms. Vaxidril is a good preliminary

anti-thrombotic

agent, but it does nothing to dissolve existing blood clots, particularly those that have already migrated from their point of origin, and as such would have done nothing to avert embolism. However, I can say with some certainty that its use in no way contributed to the ultimate cause of death."

"Interesting... thank you, Dr. Jones. Please have a seat," Dr. Gavelle said. "Dr. Ramstein, your take?"

"We missed it by a hair," he said. "Had he survived to make his appointment, the 3-T scan would've easily identified the ventricular dysfunction, if not also the embolism itself. We would've been able to start him on more specialized anticoagulants immediately and dissolve it."

"Dr. Carter, how long was Mr. Nestor in the hospital for?"

Dr. Carter slowly stood. He looked fine, but I knew him. I could tell that this had been weighing on his mind. It hurt me to see what all this was doing to him. He gave a flat, factual account; sort of the way I do when I'm under orders to provide information.

"The admitting nurse recorded his arrival as 9:35 AM yesterday," he stated. "My first consultation with him was at 10:15, and I returned to administer the Vaxidril at noon."

"Fifty-two minutes before his death," Dr. Howard added.

"That is the timeframe, yes."

Dr. Carter had said the part about the Vaxidril as if it were of no consequence. Of *course* Dr. Howard wasn't going to let that go unchallenged. I was really starting to dislike his attitude.

"Three hours and seventeen minutes..." Dr. Fine said. "That's the time we had to admit, diagnose, and treat him with. Tough spot to be in."

"Indeed," Dr. Gavelle agreed. "Dr. Strauss, your thoughts?"

"In light of this, it would certainly appear that I... underestimated the severity of Mr. Nestor's condition. However I stand by my decision. Acting without further information would have been foolhardy. Nearly all cardiac treatments involve some level of chemical shock to the blood. We can't risk upsetting a system in such a delicate state by initiating the wrong treatment regimen. It's very rare for a condition that presents in this manner to suddenly worsen without cause. But of course... that's not to say it is impossible."

"An excellent point, Doctor," Dr. Gavelle said, before turning off his microphone and having a quick huddle with his associates in hushed tones that I could easily hear.

Their words weren't nearly as accusatory as they were before. They sounded positively mundane in fact. Administrative measures, procedural changes, legal matters... the actual case at hand seemed an afterthought. It wasn't long before Dr. Gavelle addressed the Conference again.

"This board rules that no attending physician in Dr. Carter's position could've been reasonably expected to correctly diagnose and treat Mr. Nestor's condition in the time available. Dr. Carter's treatment methodology was sound, and no personal fault of negligence or lack of due diligence can be found with the medical staff involved. Mr. Nestor's death was a tragic, but unavoidable loss."

I don't like sitting on my tail. Particularly when it's wriggling

excitedly like this, but I had to maintain some sense of decorum, even if I felt like jumping through the ceiling. It wasn't our fault! Dr. Carter was going to be okay! I could barely focus on the rest of Dr. Gavelle's boring summation through my own giddy excitement.

"...to ensure that admitting nurses will take greater care in the assessment of cardiac risks, particularly in terms of background checks and medical histories. A detailed list of all aviation and recent spaceflight will be made part of the cardiac risk-factor questionnaire and the medical history workup. Knowing about that shuttle flight sooner might've saved Mr. Nestor. Other procedural changes will appear in later write-ups and will be promulgated as necessary. Now onto the other, more serious issue..."

Other... issue? My tail stiffened, along with the rest of my body.

"What I found most distressing about this case only came to light after the investigation was underway, and questions about the particulars of those involved started getting asked."

No... no, no, no!

"I am of course, referring to the matter of Dr. Carter's... rather distressing reliance on unsound sources of medical advice."

My heart stopped for a moment. Literally, my heart stopped beating. I'd read about what that feels like. I've told patients to watch for the symptoms dozens of times, but now I knew *exactly* what it felt like. I realized why that look of blinding, abject terror stuck on someone's face when they were conscious in cardiac arrest. I gasped, nearly choking on my tongue as I brought a shaking hand to my mouth in an effort to keep quiet. My breath whistled through the fur on my knuckles. No, it couldn't be... we didn't do anything wrong, it wasn't our fault!

"Donna Morris, would you please take the stand?"

My entire body seized as I looked up at Dr. Gavelle. I looked down when I tasted blood and unclenched my jaws. Two small punctures from my fangs in the side of my finger. They'd stop bleeding quickly enough, puncture wounds are like that. I'll have to

rinse these so they don't get septic and remember not to lick. I wonder if I still have my styptic pen...

"Miss Morris?"

What? Dr. Gavelle! The Conference! I can't! No... I'm gonna faint, gonna faint...

Even as the edges of my vision blurred out I found myself lurching awkwardly to my feet. The Jackal was nipping at my legs, nudging me forward. Of course... That was a direct order from the Chief of Medicine. No way was I going to get out of this for a little thing like having a massive panic attack and passing out. I was trying as hard as I could to be extremely interested in the

grain of the rounded wooden trim of the institutional beige Formica

table on the dais

in front of me as I felt all the eyes in the room on me.

No good. Dr. Gavelle was waiting for me to look at him. I gritted my teeth

and gripped the stand's railing

as I looked him in the eyes. All the while my body was screaming 'No, no! Don't look him in the eyes! Down! Lay down! Roll on your back! Show him your belly and say you're sorry!'

"It would appear that protocol binds my hands here, Miss Morris," Dr. Gavelle said in an easy tone, he seemed to be the only one taking any note of my distress. "I would much prefer to administer an oath, but regulations dictate that I must order you to tell the truth. Is that alright?"

"I... y-yes Doctor," I squeaked, I could already feel

the

Jackal on my back weighing me down, constricting me. "I

understand."

"Good. Donna Morris, I, as the hospital's highest direct-

order authority appointed by Ecosystems Unlimited, order you to respond to all questions asked within this Conference truthfully, accurately, and to the fullest extent of your knowledge. Do you understand?"

"Y-ye... rrk!" Jackal! You have to ease up on my throat so I can talk!

My breath came easier as the pressure let up. "Yes, Doctor."

"Good. Now there are a few things that I'd like to hear from you. It was very obvious that Dr. Carter wanted to keep you from being involved in this. He's never given me cause to question his integrity before, but he went to great lengths to protect you, and I want to be very certain about the facts of this matter."

"Doctor, I-"

"I'm sure that you have much to say, but for now, speak only when you are spoken to, okay?"

NO! No it's not okay! He's a *good* Doctor, I'm a *bad* dog! That's all there is to it. Stop making it his fault! It's not his fault...

None of those words made it to the air. My lip quivered as I stood silently,

the

Jackal tightening my jaw, reminding me how foolish it would be to risk defying that order. What was I to gain anyway? Answer the questions...

"Now, whose idea was it to administer Vaxidril to Mr. Nestor?" Dr. Gavelle asked.

"It... was my idea. I told Dr. Carter that I thought Vaxidril would help."

"And no physician or qualified staff member advocated this?"

"No. No one ever mentioned Vaxidril to me in the context of this case."

"What made you think that Vaxidril would help?" he asked, as though this was just idle curiosity on his part.

"Well, I..." I couldn't figure out where he was going with this, suddenly this was about me? That was good news, right? I didn't have any more time to think as I soon found words spilling out of my mouth again. "I listened to his heart."

"-with a sonogram." Dr. Fine inserted.

"No, with my ear." The way I winced at the word 'sonogram' probably didn't make me look any more confident.

"And what did you hear?" Dr. Gavelle asked, getting back on point.

"You want me to describe the sound? You know, it's kind of a swooshing-"

"Describe it in *diagnostic* terms, if you please," said the ever-impatient Dr. Howard.

Not my fault, jerk. Stupid orders make me say stupid things. If I were allowed to actually talk- ah... Nipped by

the Jackal, back to the question.

"There was a counter-rhythm that I attributed to a prolapsed mitral valve. There were eddies outside the normal ventral flow that I couldn't explain any other way, and the systolic beat was longer than it should be."

My explanation seemed to fascinate Dr. Fine. After a pause, he looked up to the table of 'persons of interest'. "Dr. Strauss. You did a sonogram, correct?"

"Yes," came the reply.

"And the results?"

"No prolapsed valves, but the rhythm I observed was... remarkably similar to what Miss Morris described."

The board members exchanged a glance. This sort of thing was nothing new to me. When you corner the docs and really press them, they will at some point grudgingly acknowledge my effectiveness. Apparently this was news to the board

, though.

Dr. Gavelle turned back to me.

"What was your reaction when you learned that it was not a prolapsed valve?"

"I was still suspicious. Dr. Strauss pointed the finger at recurrent stress-related palpitations, but I didn't like that explanation. The left ventricle was overwrought, and the isolation of that strain to only one chamber meant that it wasn't part of a stress or adrenaline response. The sinews of his mitral valves were heavily stressed on the systolic beat. Now that I knew the valves were working normally, I concluded that the left ventricle was pumping to an extraordinarily high pressure. The ability to do that meant that he still had a strong, functional myocardium. That, plus the healthy valves and lack of coronary obstruction meant that there was probably nothing wrong with the heart itself at all."

"Wha... back up a second," Dr. Fine interrupted. "You could hear the sounds that his mitral valves made when they were *closed?*"

"Yeah... I mean, I have to listen close, but-"

"Is that even possible? Dr. Strauss!"

"Well, uh..." It was becoming clear that Dr. Strauss was getting a bit flustered by being called out like this all the time. "Not with any equipment that I'm familiar with, but Mr. Nestor did have some very significant isolated systolic hypertension. That would put his mitral valves under extraordinary strain when closed. It is at least... *conceivable* that some detectable amount of valve vibration might

occur in the course of the systolic beat."

"Okay..." Dr. Fine sighed, "Let's say for a moment that I believe that. Your conclusion

, Miss Morris?"

"This was a healthy heart," I said. "The long, high-pressure systolic beat meant that the stressing factor was somewhere else in the bloodstream." I heard... scratching on paper, tapping datapads. People were... taking notes? Nipping again! Right, right. Answer the question. "In order for the pressure difference to be this significant, it would have to be an obstruction of a major artery. Since all his coronary arteries had spent the day under a microscope and he didn't display any neurological symptoms associated with excess blood pressure or artery blockage in the brain, that meant it would have to be the major veins in his legs."

"Deep-vein thrombosis..." said Dr. Fine, still not appearing to entirely believe what he was saying.

"Yes. I recommended Vaxidril because it has been proven highly and rapidly effective in the treatment of deep-vein thrombosis." I tried to stop, but my ear twitched as if I was hearing a distant echo... 'to the fullest extent of your knowledge...' "A-and because... I believed that he may not have had as much time left as we thought."

"And..." Dr. Gavelle prompted.

"'*And*' nothing! That was my suggestion and it didn't work. I was wrong."

"'Didn't work' perhaps, but 'wrong'? Certainly not," Dr. Fine assured me. "You're the only person other than Dr. Jones to even use the *term* deep-vein thrombosis, which Mr. Nestor most certainly *had,* and that was the ultimate source of the embolism that killed him! Any other day a fast-acting anti-thrombotic like Vaxidril might've been the decisive action that saved his life. You had a bad break, Miss Morris."

What? It wasn't my fault either? My jumping for joy was interrupted by another uncomfortable squeeze by

the Jackal; making me spit out the *one* doubt that came to my mind.

"So, even if I do everything exactly right... he dies anyway?" Damn this truth order! I wanna shut up now...

"That is the reality of medicine," Dr. Gavelle said, with a long pause before he moved on. "Still, this doesn't change the fact that as an unaccredited volunteer, you have no business advising physicians on courses of treatment."

Well, there it goes then. All than enthusiasm and praise just tossed out, because I'm still just a helper dog...

"However, I daresay that no one would be dubious of a doctor taking treatment advice from a *nurse.* That's rather the point of having medical professionals that are a bit closer to the patient. You applied to become a nurse, did you not?"

"I did..."

"Some time ago?" he asked.

"Almost ten weeks." Thank you for rubbing my nose in this, Doctor.

"Extraordinarily long processing time, wouldn't you say?"

Processing? I... hadn't been rejected yet?

"I was... told that such delays weren't unheard of." I knew it was a *lie,* but what was I going to do about it? I had to bite back those words to stop them from coming out. '*the fullest extent of your knowledge...'* No! I don't have to say that. That is Donna Morris' opinion. It is not a fact! Miracle of miracles, the

Jackal let up. Maybe I'll get through this with my sanity intact after all.

"I took the liberty of looking into that for you." Dr. Gavelle

produced a folder from his briefcase and slid it down the table for his colleagues to inspect. "It seems that it got hung up somewhere in the pipeline. Funny how a personal inquiry by the Chief of Medicine tends to grease the wheels of even the most troublesome administrative processes. You've had quite a time of this, it seems... I have to ask, what motivated you to want to become a nurse so badly?"

"In some ways, it's all I know," I said, relieved that the Jackal was offering me some leeway since this was a complicated question. "I was my owner's therapy dog all my life, and I spent a *lot* of time in this hospital. I practically grew up here. My first word was 'doctor'. And not a moment too soon I might add. That's how I got that citation you're holding, Dr. Fine."

"Indeed..." Dr. Fine looked up from my file. "I was wondering how you ended up with a Special EMS Recognition Award. I didn't know that they gave these to animals."

"The award is given to *non-EMTs* that render services instrumental to lifesaving efforts. Nowhere does it specify that they have to be human."

"Yes, I can read the certificate. 'Vital to the emergency medical treatment of one Mr. Andrew Simmons'. How exactly did this come about?"

"I was very young at the time, five I think. I only knew a handful of words, and I was actually quite slow to learn more. I knew my name, my owner's name, I knew 'good dog, bad dog', and of course I learned 'doctor' from hearing it all the time. Sometimes it was tough to keep track of me when my owner was here for checkups or therapy. The patients loved getting visits from me though, so I was given a collar transponder that would make sure I didn't get outside or into the ER or anything, that way I could wander around and visit as I pleased, and I wouldn't be too hard to find.

"I was in the room of a child that had had a severe reaction to an infection from some spores in his lungs. The infection wasn't too bad, but an allergic reaction had resulted in severe swelling in his airways. He was still unconscious, but his father was there visiting.

So I stopped in to greet him. He didn't seem interested in me, he just sat there in the chair by the bed, so I was about to leave. He grabbed at my leg as I was walking away. I growled at him, but then I noticed how sweaty his palms were. He made a pained face, but not a sound. He couldn't breathe. He released me as he collapsed on the floor.

"I had heard people call out 'Doctor' when someone was in trouble, and so that's what I did. I ran out in the hall barking and calling out 'Doctor! Doctor!' Fortunately, if there's one thing talking dogs are good at, it's getting attention. It wasn't long before I got someone to follow me and led them back to the room. I got pushed out of the way a lot, and then there was a bunch of shouting and noise as the trauma team got there. I got scared and hid under a couch in the waiting room.

"Edward had a lot of trouble coaxing me out of there later. I was so afraid I had done something wrong. I just whined: 'bad dog, bad dog...' until he carried me out of there. He took me to Mr. Simmons' room. He couldn't talk because of the ventilator, but he seemed excited when I came in. He started to cry while he was rubbing my head. I cowered away because I didn't understand happy-crying. He hugged me close to him and I figured it out a little better.

"It turned out that the severe sensitivity to those spores was genetic, and the same condition that afflicted his son had flared up suddenly in Mr. Simmons. It came on so fast that he had stopped breathing before he could call for help. His back was to the door, so the way he was sitting in the chair he looked okay. His son was perfectly stable, so no one would've had any reason to go in that room if I hadn't made a fuss about it. He very easily could've died.

"The hospital chairman got a surprise when he was putting the medal on my collar. He told me I was a good dog. I nuzzled his hand and said 'good dog!' right back."

"Hmph, right place at the right time," Dr. Howard scoffed.

"Sometimes that's all it takes..." Dr. Gavelle replied. "So, this is what made you interested in medicine?"

"It... got me started." I was beginning to wonder why he was so hung up on this. Wasn't the Conference more important? I didn't get to wonder for long. The Jackal prompted me to start spitting out my life's story again. "From then on when I was visiting with people, I would investigate them. Sniffing, watching, licking, none of it looked out of the ordinary, but it wasn't long before I was in the waiting room at pediatrics, nosing at a child's feet and following him around. His mother was obviously a bit surprised when she came to get her son and the therapy dog he'd been playing with looked up and said 'doctor'.

"Of course she asked about this, and given my history, they took a closer look at his feet. It turned out he had developed a fungal infection from playing in the mud without shoes on. I found something that was wrong, that meant I was a good dog. I was slow to learn more words, but I got such high praise for how I used 'Doctor' that it became my new toy. When I was right about there being a problem, I was a good dog. When I was wrong, I was a bad dog. Even if they already knew what the problem was, if I was right that meant I still did good.

"It was a cute game, and most people treated it as such, but whether they realized it or not, the staff here was training me to identify sick people and get help for them. That was how I started learning about medicine. Even at such a young age

, I was learning all about the ethics of medical practice. The word that I knew had power, and there were consequences for abusing that power. I'll never forget the scolding I got for sitting down next to my empty food bowl and saying 'doctor'. Well, *I* certainly thought it was a crisis..."

I heard a few people laugh, and Dr. Gavelle smiled. At least I was keeping everyone entertained. That made me a little more comfortable about the forced word-vomit I was having in front of everyone.

"I learned the process of diagnosis. How to use my senses to find problems, what information is significant and what isn't, what problems are worth reporting and what people need help the most. I learned about triage

, too

. If someone had an infection, you put a paw on it, 'doctor'. If someone is having trouble breathing you jump around and make a big fuss, 'Doctor! Doctor!' And... I learned about death." No, no don't make me say that part. I don't want to talk about that.

"Go on..." Doctor Gavelle prompted.

Gah! Yeah, I know. I have to do it now...

"There was one time... when I ended up in the morgue. The Medical Examiner heard me whining and came in. He found me there, nudging someone... that was on the slab. 'Doctor, doctor...' It... was someone I had met earlier in the week. I must've followed his scent there." I swallowed hard. There was no way I'd be making it through this if not for the Jackal pushing me. Not that I was grateful for his 'assistance'. "The

M.E.

was obviously a bit irate with me, coming in there, putting my paws all over a dead man like that. When he tried to chase me away I barked back at him

,

'Doctor!' and stood my ground. He figured out what I was

trying to do

; told me I was a good dog... I got very upset when he tried to lead me away. It wasn't right. No one was helping him. No one was making him get better! They're... supposed to make him get better...

"I didn't understand what was wrong. I wouldn't leave him until I knew he would be okay. I was so confused and... I just couldn't- I... they had to turn me off." Thanks for bringing that memory back in such *detail,* Jackal. "I didn't have the words for it then, but I knew that something very bad had happened to him. It was something that the most powerful tool I had couldn't fix. Everything changed then. I wasn't just doing what I was trained to. I knew then that I

wanted to do everything I could to stop that bad thing from happening to anyone else."

"Well," Dr. Gavelle began, "that is certainly... quite compelling."

"A real shame." All that deep sadness I had felt moments before blazed into anger the instant I heard Dr. Howard speak. "With these qualifications, accolades, glowing recommendations and your... unique skill set, you'd make a fine physician, perhaps even a cardiac specialist."

'A shame'? A *shame* that I wanted to be a nurse? What in the name of- I heard Officer Drew stand up. Oh, no. Many of these people can't read me too well, but he knows *exactly*

what an agitated canine looks like. Keep it together, Donna.

"Well, you *might*," Dr. Howard said, surveying the contents of the folder, "were it that those fields were not barred from you of course."

I heard a sharp growl from the back of my mind. I think

the Jackal was starting to hate this guy too. Of course I couldn't say anything; I was ordered not to. Drew is watching you, stop breathing so fast! No use getting mad. Deep breath in, *slow* breath out through the mouth... just like when Edward taught you how to blow bubbles. Slow, measured breath out... I got a prod from the Jackal as my indignation cooled. Dr. Howard *did* just speak to me, and I couldn't confront him specifically... unless he asked me a question, of course.

"I'm surprised at you, Doctor Howard," I ventured.

"How's that?" Which was a question...

"I would think that you of all people would understand that not all nurses are aspiring doctors."

"Why yes, of course. But wouldn't you jump at the opportunity for such a respected position as a GP or specialist?"

Hah! Got him again!

"Doctor Howard," I began, "I do not aspire to be a nurse simply because being a doctor is barred from me. I did not shoot for the Moon and miss. I am trying to become a nurse because I *want to be a nurse*."

I heard shuffling and small changes in posture all around the room as I spoke, I was certainly commanding some attention now.

"I *like* taking care of people; getting to know them, answering their questions, helping them to really *understand* what's happening. I *like* easing their pain and confusion; taking care of them and making them comfortable. And I *like* watching my patients get better and ushering them out the door when they're well again. I have no higher goal in my pursuit of medicine... and I would be grateful if you would not insinuate that on my part."

My finger had started bleeding again. Blood pressure must be up.

"As you wish." Dr. Howard responded. He seemed to be taking my words as a challenge. Which they were. This man had been making me miserable and trying to slander Dr. Carter for no reason that I could identify. I had long ago reached my limit of tolerance for him.

"It sounds as though your priorities are in order, Miss Morris." The much more even-tempered voice of Dr. Fine got me to stop giving dagger-eyes to his contemporary. "It's actually quite fortunate that we came into possession of your file at this time. The authority needed to induct a non-human into the medical staff would necessitate a unanimous decision by the Hospital Board of Directors, whom you see conveniently arrayed before you."

Inducted... into the staff? They're actually *considering* me? Oh, oh no! I can't screw this up, not after I worked so hard. Maybe I should try to make nice with Dr. Howard. Nope, the Jackal just tried to bite me for that. And the thought of treating him with anything other than utter contempt made me start to puke a little. I'll try again later.

"So I'll ask you," Dr. Fine continued, "do you still wish to submit

this application to the Board?"

"Yes! Yes, absolutely!" My tail flapped noisily against my baggy scrub top, but I paid it no mind.

"Really?" My blood boiled again at the sound of a single word from the other end of the table. "So soon?"

"S-so... soon?" I said in a strained voice. Deep breath, just talk. Talking keeps me from growling. I have to be a good dog. I have to make a good impression. Not a good time to weigh pros and cons of eating board members.

"So soon after this incident, I mean," he said. "You realize this sort of thing can and will happen again, and you might not be found innocent of any wrongdoing next time."

"I am... *aware* of that possibility. Doctor." Of course I'm aware! What do you think I've been completely freaking out about for the last day and a half! The Jackal snarled viciously, seeming to have momentarily forgotten to police me in his state. It was only another split second before I felt one more little 'be good' nudge. It felt like he agreed with me though. Kind of like a compromise. 'Killing is wrong, but I still really want that man dead.' I had to admit that wanting someone dead was not against the rules.

"It's your enthusiasm that distresses me," he coldly stated. "It doesn't seem as though this has really affected you."

My hands shook on the railing.

I didn't ball them into fists, that's aggressive. Of course I was never in the habit of making fists. I was more in the habit of pinning someone down and crushing their larynx between my- Killing is wrong. It's wrong and I shouldn't do that. Even if I haven't eaten in awhile and Dr. Howard probably tastes really

- No. No violence. I promise. Be good. Use words...

"I... assure you, Doctor, t-that-"

"No apology, no remorse. Doesn't sound like a compassionate

nurse to me. Do you even regret what happened?"

-That was a question! Truth time, go! Let him have it!-

I... can't. He's still on the Board, I... I could ruin everything...

-He's WRONG! Tell him he's wrong! GAH!-

"Doctor... I..." I panted.

"It seems to *me*, that-"

"HOW DARE YOU?" I shouted, startling everyone in the room, including me. "How dare you even ACT like that's a reasonable question! You would never even *think* to ask that of anyone but me! What is it? I don't value human life because I'm not human *myself*? Without humanity, I would not even exist. Without humanity, I would not be half the person that I am.

"It. Is. My. JOB. To ease pain and suffering. To get to know the patients and their families to find out EXACTLY how they feel! You don't think that makes a difference? You don't think it *hurts* me to watch someone die and *then* see their loved ones all have the hope and affection that they had for their parent, or brother or husband suddenly torn apart right before my eyes?"

"Miss Morris-"

"SHUT UP, DREW!"

The startled officer cringed back into the corner.

"I will live with this guilt for the rest of my career, for the rest of my *existence!* My actions, wise or not, ended in the untimely death of one of my patients." I paused to lick the spittle off my jowls, it was starting to scatter. I made my first concerted effort to measure my tone. "But... I would regret it even more, if it were my *in*action that led to a patient's death. And nothing, but *nothing,* would bring me greater despair than to abandon all I have achieved, all that I might achieve, because of a single mistake.

"I can't allow myself to get scared; to shirk the sacred duty that I

vowed to take upon myself, just because I... I hurt someone I meant to care for. Someone so... im-import-" My voice cracked and I gasped for breath. My vision had blurred so much I could barely keep my eyes open. There was that prickly, burning sensation creeping up my muzzle.

My God... who was I really talking about here? I felt the muscles in my cheeks tighten... No, no not now. Not now! "I failed. I destroyed a life... that it was my job to save. But I will not let that stop me. I can not let that stop me. Whatever happens to that application now, whatever happens to me, ever... it doesn't matter. So long as I am able, I *will* keep healing people. Any way I can."

I tried to collect myself. As much as a wolf can collect herself when she's just spent the last minute or two screaming at her colleagues at the top of her lungs, and maybe half that time trying to stop herself from falling to the floor and sobbing uncontrollably. You can never really get completely composed when there's a man in the corner, nervously leveling a tranquilizer gun at you. That moron, I *know* he has a remote. You know, the thing that can instantly render me unconscious *without* impact trauma and inherent risk of death?

The Jackal had collapsed into a heap, exhausted from cheering for me the entire time. I'm sure that my neurotransmitter profile looked like a Jackson Pollack painting by that time. Nearly everyone in the audience was on their feet. Excitement, anger, banking on fleeing for their lives in a panicked flash mob; I didn't know what was on their minds, but I had heard them stand. There were footsteps approaching from behind me.

"Sit down, Doctor Carter," Dr. Gavelle ordered. I heard him return to his seat after a moment.

"Well," said a thoroughly overwhelmed Dr. Howard, "... good."

Wait... Good?

"That'll be all for me," he said in a suddenly congenial tone. "Anything, Dr. Fine?"

"Those sure sounded like closing remarks to me. I'm satisfied, Dr. Gavelle?"

"Quite. Thoroughly. Impressed." He stated, opening his briefcase again. "This will go down on record as your oral interview, Miss Morris."

"O-oral... in-nervew?" I was surprised that my voice still worked.

Well, mostly.

"For your certification as a registered nurse at Saint Ares General Hospital."

Awkwardly stretching over the table, he handed me a document in a thin wooden

picture frame, proudly displaying an embossed certificate that said just that. "Congratulations, Nurse Morris."

There was utter silence, during which my rasping breath started to fog the

frame's

glass in front of me, prompting me to pull my head back

from the surface of the picture frame. The smell of the oiled black walnut frame filled my nose. Yep, it was real. I didn't dream getting it

. One man started to clap, and so did everyone else in attendance as they slowly wrapped their minds around what just happened. I couldn't blame them for taking a minute. I still certainly hadn't wrapped *my* mind around it. Dr. Gavelle spoke again once the noise died down.

"So, anything to say for yourself on this momentous occasion?"

"Muwh... guh?" I was wrong. My voice no longer worked.

"Outstanding. Glad that's settled. Conference adjourned!"

There was a large general din as everyone hurriedly made for the exits, all anxious to be finished with the Conference. Or to be away from the neurotic wild animal that just belligerently freaked out all over everyone. There was still that dumbfounded wolf staring back at me in the glass covering my certificate. I didn't even notice Officer Drew standing in front of me until he started rubbing my head.

"It's okay, Donna. I understand," he said. "You're a good dog."

"Uh, uh huh... g-guddah... guh..." I nodded with my mouth slightly open. Highly sophisticated tasks like forming words were still quite beyond the capabilities of the stringy mass of inert sludge that was currently where my brain should be.

The space in front of me was soon filled by Dr. Carter. I could barely even manage an excited squeak when I smelled that it was him. My gaze still drifted aimlessly.

"You did a good job, Donna," he said. "I'm so proud of you."

He grabbed the frame as it slid through my trembling fingers.

"Whoa! Careful, now," he said as he placed it nearby

on the

table. "Wouldn't want anything to happen to that after all you went through to get it."

It took a moment before I figured out that I was just staring at my empty hands, having no idea what to do with myself.

"I couldn't have asked for a better outcome," he continued. "You know, we should really... are you all right, Nurse Morris?"

"Nuh-N-urse Morris!" I stammered, my brain finally jarring loose from the spot it had gotten stuck in. "I'M NURSE MORRIS!"

"Yes, you're Nur-urf!"

Dr. Carter staggered backwards as I leapt over the stand's railing,

throwing myself

at him, wrapping my arms around his neck and shamelessly licking his face all over. He bore it with the truly infinite patience of anyone that owns and loves an excitable dog.

"Yes, urgh, I'm glad you're-eerg, excited too- AGH!"

He winced and jerked his head when I accidentally

licked

his eyeball. It suddenly occurred to me what a fool I was being and I backed off a little bit, settling for squeezing him until I could hear the pressure change in his jugular vein. I slid back to the floor and we had a proper hug with my paws actually on the ground. I trembled with excitement as I soaked up his whispered praise. 'Good dog, Donna. You did such a good job... You're a

good

dog...' I had a little stethoscope-shaped impression on my chest by the time we let go of each other.

Once I had finally calmed down a little bit, we headed for the door together. We met Nurse Barnes just outside.

"Ah, I just heard the news," she said, as though 'the news' were nothing out of the ordinary. "Sounds like you did us proud in there. Congratulations, Nurse Morris."

"Thank you!" YES! She called me Nurse Morris! My tail was doing that thing where it just whips around in a circle because I can't possibly wag it fast enough. "How did you hear already? It's been like... thirty seconds."

"News at the speed of gossip, dear. Are you alright, Dr. Carter?"

I was embarrassed when I looked at Dr. Carter's slickened face. He was rubbing his eye and trying to manage his cowlicked hair.

"Yes, quite alright,

thanks," he responded. "Nurse Morris just happened to stick her tongue in my eye at an inopportune time."

"Ah, I see. Well, she should know that I will not tolerate that sort of fraternization among my nurses."

"Yes! Of course, Nurse Barnes!" I'm one of *her nurses*! I'm in the pack! Weeheheheeee!

"You'll be part of shift four, Nurse Morris," she said, handing me her datapad. "If I could get you to electronically sign for your duty assignment..."

My eyes widened as I looked at the roster. *Eight* patients? How was I going to- Huh? A scrollbar? FIFTEEN PATIENTS?

"N-nurse Barnes... I-" I looked closer at the datapad and the badge on my shirt accidentally touched the reader. The datapad flashed a confirmation message and suddenly flew from my hands.

"Welcome aboard! I look forward to working with you!" she said as she whirled off into oblivion.

"I... but, w-whu... uh, y-yay?"

"Welcome to nursing, Donna. Isn't it grand?"

I gave a keening little whine.

"Come on, we should celebrate. I'll buy you lunch... dinner, uh," he looked at his watch. "Umm... *food*."

"I'm too excited to be hungry right now, but I guess I could tag along."

"Good to hear. I was worried that you'd be a little wrung out after... all that."

"Oh, certainly not!" I said, confidently. "I feel fine. I mean, my mouth is kinda dry and I can't seem to stop shaking

and

I'm feeling pretty tired all of a sudden and... and

I'm

a little dizzy now that the adrenaline is wearing off though..."

"Well that's to be expected."

"And yeah, now I'm a little lightheaded and my stomach is kinda achy. My arms feel all tingly and these... there are these little dark spots around my eyes..."

"Nurse Morris..." We had stopped walking and I found myself leaning on him a little, nothing to be worried about though.

"Heh... Nurse Morris..." I giggled, not really caring that my paws didn't seem to be holding me up anymore. "S-say it again! Ehehehee..."

"Donna? Donna!"

Chapter 6

Chapter 6:

The blackness was closing from the outside of my vision. Sudden onset of tunnel vision; that's usually a sign of diffuse cerebral hypoxia. The earlier warning sign is a gradual loss of color vision. I wonder why I didn't notice *that*. Can't see anymore, but my eyes are still open, right? I think they're still open. Could be that my brain being starved of oxygen somehow... how could that happen? I'm not a fighter pilot, at least I don't think so. I hope I don't have a cerebral edema. Those are really hard to fix and the vet would probably just have to put me down. That would be too bad...

Something was squeezing my arm. I pulled but I couldn't get my arm back. It felt like the way

the

Jackal would put pressure on me sometimes. I couldn't escape. No... Go away! I'll be a good dog, I promise...

"Donna... Donna?"

"N-no I'm a good dog!" I felt a sudden lurch, but nothing moved very much. "But I... w-wha-"

"Donna? Donna, it's Dr. Carter. Can you look at me?"

I slowly turned my head to center the bleary image of Dr. Carter's face in my field of vision. "I... I think your pupils are dilated, Doctor."

He smiled. "What a coincidence, that's what *I* was looking for. They ought to be, anyway. The lights are dimmed. Not fixed dilation though, so you're okay there."

I heard the hiss of his sphygmomanometer and felt the pressure on my arm ease. Dr. Carter tapped at his datapad after he took the

cuff off.

"You need a calculator just to take BP, Doc?" I asked, still feeling a little giddy.

"Well, your arm is quite thin, so I have to use the pediatric cuff. There's a conversion factor for that. Then I have to use the baseline value for a large dog to compare it to..." He worked at the calculations some more.

"So, what did you end up with?"

"Uhm... You're fine."

I smiled as my awareness started to come back. I was lying in a cot with a blanket over me. This was too big to be a patient's room though...

"Oh... I wish my first trip to the nurse's lounge could've been on better terms."

"Yeah, I certainly didn't make you any new friends with how I cleared them all out of here. But, regulations, you know. I can't give you a patient's room because

we're not allowed to treat animals. Even if they work here."

"I get it. It's okay..." I couldn't help but nuzzle against his warm hand at the side of my head. His gentle rubbing by my ear made my leg jump and twitch underneath the blankets.

"Well, reflexes are good."

"Mmmh... mmh-hmm..."

Normally I'd fidget and try to get him to cut it out, but I'm weak to those little... creature comforts when I'm not feeling well. I let him carry on a minute, paying no mind to the appreciative gyrations of my paws.

I smelled something sweet... it was the IV in my arm. "Huh? Glucose... Really?"

"Hey, don't touch that. Do you have any idea how hard it was to set that needle through your fur?"

I took a closer sniff. "Hard enough that you got a nurse to do it for you?"

"Well, yeah. That hard."

"Why a glucose drip though?"

"Well, I assumed that you were doing what you always do when you're stressed out, Donna. You stop eating or sleeping altogether in order to more efficiently direct your energy towards freaking out for sustained periods."

"Oh, it's not all *that* bad."

"Oh really?" he asked. "When was the last time you ate?"

"I had some juice before the Conference."

He shook his head. "Food, Donna. When did you last have *food*?"

"I had lunch. Yesterday... but I threw up later..."

"And when did you last sleep?"

"Well I was on-call so, um... It would've... been..."

I groaned and slumped my head back into the pillow.

"Your blood sugar was dangerously low, even for a dog," my doctor explained. "Your stress response was the only thing keeping you conscious."

"I'm sorry, I just didn't- h-hot dogs... Oooh..." I only noticed the smell because I was starting to choke on my own drool.

"They were all I could get out of the cafeteria at this time of night," he said, producing two cheap, plain hot dogs. "Now be careful, I don't want you to-"

The hot dogs were gone all of a sudden. The process of deciding

to eat them and subsequently leaping on them was lost on me. I had spent a few seconds licking Dr. Carter's empty hands before I realized this. It also slowly occurred to me that scarfing food out of someone's hands with your face is rather impolite.

"Oh, Oh! I-I..." I noticed some drool dripping onto my chest and swallowed nervously.

"It's fine, Donna just... give me a minute to wash up and... count my fingers."

I listened to the funny noises my stomach was making while Dr. Carter washed his hands. Apparently my belly was quite upset with me and I needed to hear about it. I fidgeted a bit as he sat back down.

"I don't even *like* hot dogs..." I mumbled.

"A moot point, really," he replied. "You'd eat a pair of leather gloves if I put them in front of you *now*."

"Oooh..." I felt my drool starting to come back. "Y-you don't happen to actually *have*-"

"I'm not going to let you eat leather gloves, Donna. I thought that I was exaggerating."

I actually slumped in disappointment. He was right. I really was sick.

"Besides, it's too soon to let you eat any more," he explained. "Right now you don't have the energy to digest- Stop chewing on your blanket!"

He pulled at the fabric that was clenched in my teeth. I jerked my head and growled.

"Donna. Drop it."

The blanket slid from my jaws. Darn it... he knows the password.

"Sorry..." I said. "I know I shouldn't, but you pulled on it and all

my muscles went 'Yay! Tug-of-war!' all at the same time."

"I know, it's rough. But could you just try to keep still? Don't make me get out the neck-cone."

"I've been threatened with that one-too-many times, Doctor," I said. "Do you guys even *have* one of those cones back there?"

"Pray you don't have to find out," he said, without skipping a beat.

"You're right. That's a lot to risk. Fine, I won't eat any more for a while. I've got to save room for when I eat Dr. Howard anyway."

"Yeah," Dr. Carter laughed. "I noticed that he didn't make a positive impression on you. He was certainly first out of the Conference Room by a good margin. There's been some speculation that he may have encountered a sudden need to change his pants."

"What was his *deal* anyway?"

"Well, he's never been your biggest fan, but there's more to it than that."

"Well, I'm not going anywhere."

"Hmmm..." He considered his answer for a moment. "That kind of thing, as painful as it was to watch, and stressful as it was to endure, was part of the interview."

"I sincerely doubt that all applicants have to-"

"Yes, yes, you were something of a special case, but I'm sure you're used to that by now. You had a lot more to prove than any of the other applicants. With their being human and all, there are a lot of assumptions that can be made about how everyone else will perform. To the Board, you looked like too much of a wildcard to be trusted with this kind of responsibility. You represent a potential liability to the hospital."

"But I'm *absolutely* responsible enough! I'm a good nurse, and I do good work."

"You do, but that's not what the interview is about. Proving your knowledge is what you do at nursing school. Proving your skill and work ethic is what you do during your internship. The interview is meant to test your *convictions*. Someone who knows the answer and can do the work isn't worth anything if they can't find the nerve to speak up, don't have the courage to take action,

or if they're too timid to defend themselves from opposition.

"There *will* be differences of opinion, and you're going to have to know how to convince other people that you know what's right. That's what the interview is about. They challenge your resolve. They push you and push you, to see if you push back. It's not something you can train or practice for, but it's something you have to

learn all the same. And it's of critical importance, too. That's why you've never heard of the Oral Interview before now. It's kept secret until you're up for it. They don't want to hear planned responses. They want to know what's really going on in your head. Of course... I suppose they chose a rather inopportune time to put you through a stress-test."

"That's one way of phrasing it. I'm not in any trouble, am I?"

"Oh, no. Certainly not. There are undoubtedly some people that are going to... keep their distance from you, for awhile. But we understand the stress you were under. Most of us have been there before. The idea that you could've killed someone, it's... not something that you get over too easily. I think that's what Dr. Howard was getting at, in his... rather vindictive sort of way.

"He saw the way that this was affecting you. The fear, the uncertainty; it's that sort of stuff that can make you flinch when it really counts. I wouldn't blame you for being scared to make a decision like this again, knowing the consequences it could have for the patient. But you're going to *have* to make decisions like this again, and not all of them are going to turn out well. It's not always going to be an unlucky break. Someday, you could really do something wrong."

"He didn't have to be so mean about it," I pouted. "He said-"

"He said many terrible, hurtful things to you, Donna. Every one of them made me want to tear him in half."

"Heh, make sure you save half for me!"

He leaned against the bed as we shared a gentle laugh. I rubbed my head against his when he didn't say anything more. Old habits...

"Don't hate him too much though," he said. "That sort of trial-by-fire is what was needed here. A lot of us here thought that you were ready. But we had to be sure *you* thought that you were ready."

"What? But I was-"

"You jumped up when Dr. Fine asked if you'd like to submit your application, but that was a reflex. You always assumed that you would just get denied because of your species. To be honest, I was ready to accept that possibility myself. It was a complete surprise to think that this was possible. You never really had to consider the decision.

"Think about it for a second though. When you were out there wandering the halls, worrying yourself sick, were you thinking 'Oh, looks like I just killed someone. Boy, I can't wait to become a nurse and do this sort of thing full-time!'? If you hadn't been going to pieces as you were, you would've realized the implications and been terrified by them."

"You're right. I wanted to get as far away from medicine as possible. I was scared. It wasn't until my motives came into question that... that I..."

"That you remembered why you're here. That you remembered the motivations that made you not just tolerate, but *overcome* all the bureaucratic nonsense that you've been mired in since you joined the field. That you made a room full of seasoned physicians feel like a bunch of interns that still don't know what they're doing with their lives?"

"Yeah. All that stuff..."

"It's comforting to know, isn't it? I know I find it very reassuring that even when you've been utterly torn to pieces and are a hair's breadth from completely losing your mind, you're still the most worthy practitioner of medicine I've ever known. You can still stand up for what doctors have always stood for and give wings to the Angel of Hippocrates with your dauntless conviction."

"You... really think so?"

"Could I have said that with a straight face if I didn't believe it?"

"I'm impressed that you could say 'give wings to the Angel of Hippocrates' with a straight face in general. I think you're exaggerating."

"Am I? Donna, there are people that can practice medicine for decades without ever really *learning* what practicing medicine is all about. It's not just about fighting disease and fixing leaky heart valves. It's about so much more than that. Something I can't even put into words. Some intangible, fundamental part of the human condition that compels us to fight the creeping decay of all that is good and ordered into the slow, unceasing march of entropy. Something... about us, something that you understand far better than we do ourselves."

"I suppose... it says something that I was able to overcome all this in order to accomplish what I have," I admitted. "I was starting to think that it was impossible just the same way everyone else did."

"Oh, Donna... Someone had faith in you. Why do you think your nursing certificate had been printed and framed already?"

"I... hadn't thought of that."

"You *can* do this, Donna. Just... not now. You need time to rest, and I've arranged for that. Nurse Barnes didn't see how... *distressed* you were in there and she admitted that she was a bit... premature, in your duty assignment."

"Doctor, you didn't have to do that. I can-"

"I *did* have to do that, Donna. It was so painful to watch you up

there getting grilled by the Board and not be able to do anything about it. Now that I actually can help you, please let me."

"Nonsense," I told him, "you know I bounce back quickly. I wouldn't want to leave slack for someone else to pick up."

"Something tells me you're going to be one of those people that have always maxed-out all their overtime by two weeks into the month."

"And there's a problem with that?" I asked.

"Oh, no certainly not. That's how Nurse Barnes got to where she is today. I know that I can't stop you from working yourself to the bone, but I can stop you from stumbling out of the starting box before the gate opens."

"Is that a horseracing metaphor?"

"More of a dog-racing metaphor really, but they're interchangeable for the most part. The point is, you need to rest, Donna."

"But the duty schedule-"

"Is not going to be a problem. We had to take you off the volunteer rotation anyway. It was a simple matter to leave a gap before you start your new shift as a nurse."

"Heh..." I felt my tail wriggling beneath me. "I'm a *nurse*..."

"Yes, you're a nurse with the rest of today and tomorrow *off*. And you *will* take those days off."

"Well..."

"Donna, as a Doctor to a patient, I am ordering you to-"

"W-what?" I gasped, "But, but I..." I whined weakly when no more words would come.

"No! Not... order, like that... you know," he sighed. "Just, please

do this, Donna. I can't watch you push yourself any further. I had to carry you down here once. I don't want to have to do that again."

"Okay, Doctor. I'll take a break. That actually sounds kind of nice right about now."

"Good. And you know, you can call me Brian. We're both off work at the moment, and of course now we're *contemporaries*."

"Because I actually work at the hospital now, too!" I managed to carefully wrap my arms around him

, mindful of the infuser line. He

obligingly let me drag him down to the cot with me, giving me a gentle squeeze.

"Yes, as a *nurse*."

"As a nurse..." I said into the gentle embrace.

"So, what's my new nurse going to do with her day off?" he asked, sitting back up.

"Well, after I go home and give Edward a call, I think I'll go visit a new friend of mine and tell him the good news."

"Oh? Who's your new friend?"

"Just this robot massage therapist that I caught hijacking our ultrasound machine this morning. Turns out he knew a great deal about medicine. We got along pretty well."

"Oh, sure. I'm... just

gonna check you for head injuries one last time before you go..."

The End

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